

HEALTH RISK BEHAVIORS WITHIN THE STATE OF MICHIGAN



2014 BEHAVIORAL RISK FACTOR SURVEY 28TH ANNUAL REPORT



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2014 Behavioral Risk Factor Survey

Health Risk Behaviors
within the State of Michigan

www.michigan.gov/brfs

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Printed October 2015



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Fussman C. 2015. Health Risk Behaviors within the State of Michigan: 2014 Behavioral Risk Factor Survey. 28th Annual Report. Lansing, MI: Michigan Department of Health and Human Services, Lifecourse Epidemiology and Genomics Division, Chronic Disease Epidemiology Section.

This publication was supported in part through Cooperative Agreement DP15-1513 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.






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BRFSS Methods

2014 MiBRFS

The Michigan Behavioral Risk Factor Survey (MiBRFS) is an annual, statewide telephone survey of Michigan adults aged 18 years and older that is conducted through a collaborative effort between the Population Health Surveillance Branch (PHSB) of the Centers for Disease Control and Prevention (CDC), the Michigan State University Institute for Public Policy and Social Research (IPPSR), and the Michigan Department of Health & Human Services (MDHHS). Michigan Behavioral Risk Factor Surveillance System (MiBRFSS) data contribute to the CDC Behavioral Risk Factor Surveillance System (BRFSS) that is conducted within every state, the District of Columbia, and several U.S. territories.

In 2014, the MiBRFS collected data from both landline and cell phone respondents. The sample of landline telephone numbers was selected using a list-assisted, random-digit-dialed methodology with a disproportionate stratification based on phone bank density, and whether or not the phone numbers were directory listed. The sample of cell phone numbers was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange.

A weighting methodology known as iterative proportional fitting or raking was used in 2014 to allow for the incorporation of cell phone data and to improve the accuracy of prevalence estimates based on MiBRFS data. Estimates based on this weighting methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of the Michigan adult population by telephone source (landline or cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status.

Due to the BRFSS methodology changes that were implemented in 2011, the 2014 MiBRFS estimates provided within this report should only be compared to estimates from 2011-2013 and not to estimates from years prior to 2011.

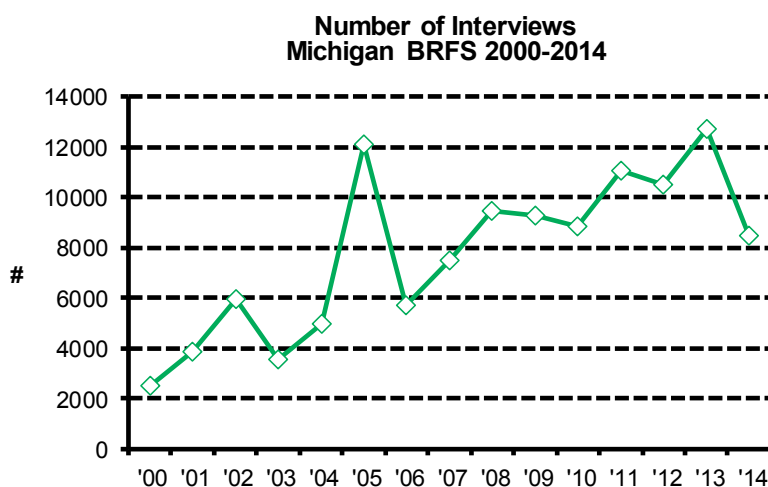
Prevalence estimates and asymmetric 95% confidence intervals (95% CIs) were calculated using SAS-Callable SUDAAN (version 11.0.1), a statistical computing program that was designed for analyzing data from multistage sample surveys.¹ If the 95% CIs for two estimates from different subpopulations or survey years did not overlap, they were considered to be statistically different. Unless otherwise specified, respondents who answered that they did not know or refused to answer were not included in the calculation of estimates. For comparison purposes, the median estimates from all 50 states and the District of Columbia were used as national estimates.

In addition to this report, the MiBRFSS releases several additional publications each year. These publications provide statewide health estimates for Michigan adults as well as estimates among demographic and geographic subpopulations. MiBRFSS Surveillance Briefs are also published on a quarterly basis and highlight new topical data from the MiBRFSS, including data from MiBRFSS state-added questions. All of these publications can be found on the MiBRFSS website (www.michigan.gov/brfs).

Sample Results for the 2014 MiBRFS

The total sample size for the 2014 MiBRFS was 8,466 (landline = 4,973; cell phone = 3,493). The response rate for the landline portion of the 2014 MiBRFS was 50.3%, while the response rate for the cell phone portion of the survey was 41.6%. The overall weighted response rate (landline and cell phones combined) for the 2014 MiBRFS was 47.8%. The overall weighted U.S. median response rate for 2014 was 47.0%.²

Over the past several years, MDHHS has been able to maintain an annual MiBRFS sample size of at least 8,000 completed interviews. A larger annual sample size increases the utility of the survey by providing more precise estimates, allowing for an increased number of topics to be covered each year, and enables the calculation of estimates for more demographic and geographic subpopulations.





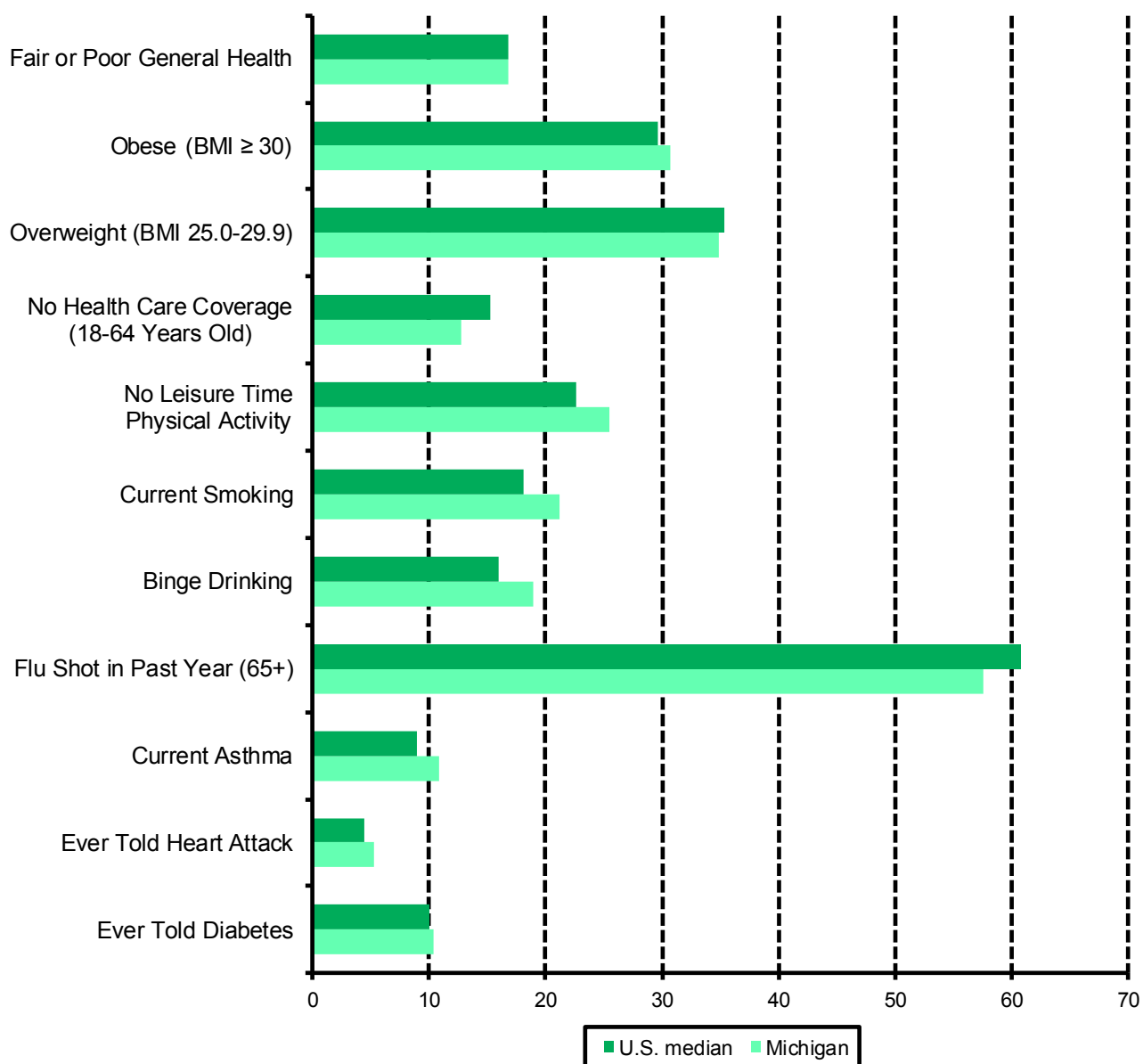
Summary

2014 MiBRFS

This report presents estimates from the 2014 MiBRFS, a statewide landline and cell phone survey of Michigan residents aged 18 years and older. It is the only source of state-specific, population-based estimates of the prevalence of various health behaviors, medical conditions, and preventive health care practices among Michigan adults. The survey findings are used by public health agencies, academic institutions, non-profit organizations, and others to develop programs that promote the health of Michigan citizens.

All of the results from the 2014 MiBRFS presented within this report have been weighted as described in the methods section and can be interpreted as prevalence estimates among the Michigan adult population. Due to the BRFSS methodology changes that took place in 2011, these estimates should only be compared to MiBRFS estimates from 2011-2013 and not to MiBRFS estimates from years prior to 2011.

**Selected Risk Factors - 2014 CDC BRFSS
U.S. vs. Michigan**





2014 MiBRFS

Summary, continued

Public Health Implications of Findings

A number of themes emerge from the findings of the 2014 MiBRFS that have implications for public health.

✧ Michigan is making great strides in increasing access to health care coverage.

In 2014, an estimated 12.7% (95% CI: 11.6-14.0) of Michigan adults aged 18-64 years reported not having any form of health care coverage. This represents a significant decrease of 4.7 percentage points from the 2013 prevalence of 17.4% (95% CI: 16.3-18.6). From 2013 to 2014, the prevalence of no health care coverage decreased among males (2013: 21.0% vs. 2014: 15.1%) and females (2013: 13.8% vs. 2014: 10.3%), as well as White, non-Hispanic (2013: 15.4% vs. 2014: 11.3%) and Black, non-Hispanic adults (2013: 26.4% vs. 2014: 17.6%). The Healthy Michigan Plan, which was implemented on April 1, 2014, makes health care benefits available to individuals at a low cost. As the Healthy Michigan Plan continues, we hope to observe further decreases in the number of Michigan adults aged 18-64 years who report not having any form of health care coverage.

✧ Multiple chronic conditions continue to be a problem among Michigan adults.

In 2014, an estimated 29.1% of Michigan adults reported that they had ever been told by a doctor that they had two or more of the following chronic health conditions: diabetes, cardiovascular disease, current asthma, COPD, cancer, arthritis, kidney disease, and/or depression. Furthermore, an additional 27.3% reported ever having only one of these chronic health conditions. The prevalence of multiple chronic conditions increased with age, and was significantly higher among females (32.2%) than males (25.8%). The prevalence of multiple chronic conditions was similar by race/ethnicity, but was significantly higher among the less educated and lower household income groups. Through public health efforts, such as the Million Hearts initiative, MDHHS chronic disease programs continue to work collaboratively toward reducing the burden of these chronic conditions within the Michigan adult population.

✧ Racial disparities in weight status among Michigan adults have diminished.

In 2014, an estimated 30.7% of Michigan adults were classified as being obese (BMI \geq 30.0), which is similar to the 2013 prevalence of 31.5%. For the past several years, Black, non-Hispanic adults have reported significantly higher obesity prevalence estimates than White, non-Hispanic adults. In 2014, this disparity diminished with the prevalence of obesity among Black, non-Hispanic adults (33.6% [95% CI: 29.6-37.7]) being similar to that of White, non-Hispanic adults (30.2% [95% CI: 28.8-31.6]). In addition to targeting Michigan's high burden populations, the Michigan Nutrition, Physical Activity and Obesity Program continues to develop programs that focus on improving nutrition and increasing physical activity among the entire Michigan population.

✧ Smoking and secondhand smoke exposure have stabilized, but more progress is needed.

In 2014, an estimated 21.2% of Michigan adults reported that they currently smoke cigarettes on a regular basis, which is similar to the 2013 current smoking prevalence of 21.4%. Unfortunately, this means that one in every five Michigan adults currently smoke cigarettes. Even with the passage of the Michigan Smoke-free Air Law on May 1, 2010, secondhand smoke exposure continues to be a problem in Michigan with an estimated 24.9% of adults reporting that they were exposed to secondhand smoke in their home or in a car within the past seven days. When focusing only on non-smokers the prevalence of secondhand smoke exposure during the past seven days decreases to 15.4% (95% CI: 13.9-17.2). With a sustained emphasis on smoking cessation and smoke-free regulations, the MDHHS Tobacco Program anticipates that the prevalence of smoking and secondhand smoke exposure will start to decrease again within the coming years.

✧ Binge drinking among Michigan adults remains higher than the U.S. median.

In 2014, an estimated 18.9% of Michigan adults reported having at least one binge drinking episode within the past month. The prevalence of binge drinking among Michigan adults is significantly higher than the U.S. median binge drinking prevalence (16.0%). With exception of the 2010 survey year, the prevalence of binge drinking among Michigan adults has been higher than the U.S. median for the past decade. MDHHS' Alcohol Surveillance Program provides data and statistics to local health departments and organizations committed to reducing adverse impacts of excessive alcohol consumption through the use of environmental and policy interventions described within the Guide to Community Preventive Services (<http://www.thecommunityguide.org/index.html>). MDHHS programs work in concert with local coalitions and other stakeholders to address excessive alcohol consumption throughout the state.



2014 MiBRFS

Summary, continued

Future of the Michigan Behavioral Risk Factor Survey

The target sample size for the 2015 MiBRFS is 8,400 total completed interviews. Of these 8,400 interviews, 4,200 will be completed with landline respondents, while the remaining 4,200 will be completed with cell phone respondents. The 2015 questionnaire will include approximately 50 state-added questions on numerous topics, including cognitive decline, binge drinking, family planning, food access, social context, and cancer survivorship. The full 2015 MiBRFS questionnaire is available on the MiBRFSS website (www.michigan.gov/brfs).

The BRFSS continues to adapt to challenges and expand its utility. The representativeness and validity of MiBRFS estimates has been improved. For example, due the drastic increase in the utilization of cell phone communication, the BRFSS now collects approximately half of the data from cell phone respondents. Furthermore, the CDC has implemented a new raking weighting methodology so that BRFSS estimates are more representative than ever before. Michigan has also expanded the utility of the MiBRFS through the following projects:

- The maintenance of a larger MiBRFS sample size will allow for more precise estimates among racial/ethnic populations, especially when multiple years of data are combined.
- In 2014, a standalone BRFSS-like oversample survey was conducted among the Hispanic/Latino adult population within Michigan. Results from the 2012 Michigan Hispanic/Latino standalone survey and the 2013 Michigan Arab/Chaldean standalone survey have been released and are available on the MiBRFSS website.
- Since 2005, questions have been included that randomly select one child in each household and obtain demographic characteristics of that child. This information allows us to ask health-related questions about this child and then to calculate estimates for childhood conditions, such as asthma.
- An Asthma Call-Back survey that follows up on children and adults who were identified as having asthma during the MiBRFS interview has been conducted since 2005, allowing for collection of more detailed information on asthma management, clinical care, and impact of the disease on people's lives. It is anticipated that this methodology could be useful for other subpopulations in the future.
- In recent years, the MiBRFSS has expanded to include questions focusing on topics such as dental coverage, hookah use, secondhand smoke exposure, inadequate sleep, and prediabetes.
- MiBRFSS estimates are used as progress indicators for federal grants focusing on the prevention and control of diabetes, heart disease, obesity and their associated risk factors (CDC 1422/1305).
- The MiBRFSS is a main source of data for a number of the chronic disease indicators that are used to support Michigan's Coordinated Chronic Disease Prevention and Health Promotion State Plan.
- The MiBRFSS is the source for seven of the 20 indicators included within the Michigan Health and Wellness Dashboard (<https://midashboard.michigan.gov/health-and-wellness>). This project provides a quick assessment of the health and wellness of Michigan residents.
- Several BRFSS indicators are used in the Robert Wood Johnson County Health Rankings. These rankings measure the overall health of nearly all counties within the United States and rank them within states.

In conclusion, the MiBRFS continues to serve the needs of public health officials, health care providers, researchers and local and state level policy makers, while presenting a number of opportunities for expanding our understanding of the risk factors and preventive behaviors for the major causes of disease and disability in Michigan.



General Health Status

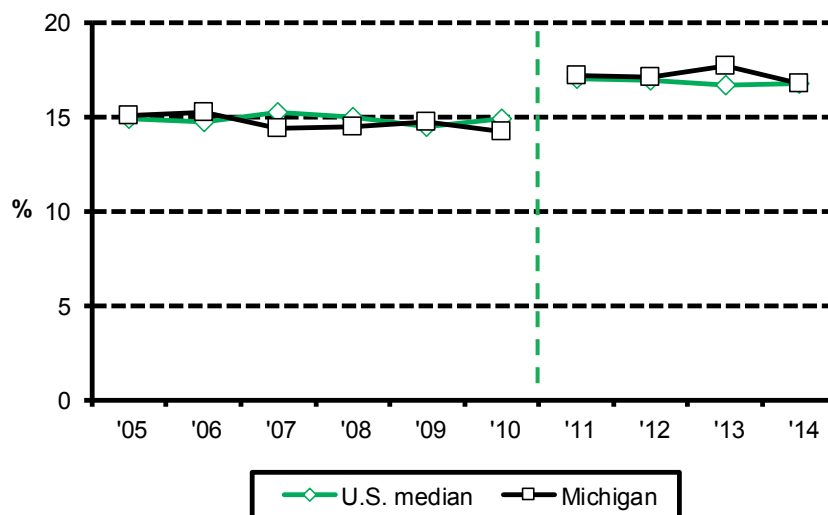
Self-assessed health is a measure of how a person perceives their own health. Self-assessed health status has been validated as a useful indicator of health among different populations and allows for broad comparisons across a variety of health conditions.³

- ◆ In 2014, an estimated 16.8% of Michigan adults reported that their general health was either fair or poor.
- ◆ Fair or poor general health increased with age and decreased with increasing household income level.
- ◆ The prevalence of fair or poor general health was similar by gender and health insurance status.
- ◆ White, non-Hispanic adults (15.3%) reported a significantly lower prevalence of fair or poor general health than Black, non-Hispanic (24.3%) and Hispanic adults (24.2%).
- ◆ Disabled adults (42.7%) reported a significantly higher prevalence of fair to poor health than non-disabled adults (7.8%).
- ◆ The BRFSS methodology changes that were implemented in 2011 resulted in a spike in the prevalence of fair or poor general health among Michigan adults, but since these changes, the prevalence of fair to poor general health has remained within the 16%-17% range.
- ◆ In 2014, the prevalence of fair or poor general health among Michigan adults (16.8%) was equal to that of the U.S. median prevalence (16.8%).

Demographic Characteristics	General Health, Fair or Poor ^a	
	%	95% Confidence Interval
Total	16.8	(15.8-17.8)
Age		
18 - 24	7.8	(5.6-10.7)
25 - 34	13.2	(10.4-16.6)
35 - 44	11.9	(9.3-15.0)
45 - 54	19.0	(16.6-21.7)
55 - 64	22.3	(20.1-24.7)
65 - 74	20.3	(18.0-22.8)
75 +	25.1	(22.1-28.3)
Gender		
Male	16.8	(15.3-18.4)
Female	16.7	(15.4-18.1)
Race/Ethnicity		
White non-Hispanic	15.3	(14.2-16.4)
Black non-Hispanic	24.3	(20.7-28.2)
Other non-Hispanic	14.4	(10.9-18.7)
Hispanic	24.2	(16.7-33.7)
Household Income		
< \$20,000	32.8	(29.4-36.5)
\$20,000 - \$34,999	20.9	(18.5-23.6)
\$35,000 - \$49,999	15.6	(13.1-18.5)
\$50,000 - \$74,999	9.1	(7.2-11.4)
≥ \$75,000	7.4	(6.1-8.9)
Health Insurance		
Insured	16.7	(15.7-17.8)
Uninsured	18.1	(14.5-22.5)
Disability		
Not disabled	7.8	(7.0-8.8)
Disabled	42.7	(40.1-45.3)

^a Among all adults, the proportion reporting that their health, in general, was either fair or poor.

**General Health, Fair or Poor
U.S. vs. Michigan, 2005-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Quality of Life

2014 MiBRFS

Physically and mentally unhealthy days measure the number of days within the past 30 days that individuals rate their physical and mental health as not good. Poor physical and mental health was defined as 14 or more days within the past 30 days in which the adult respondents rated their physical and mental health as not good.

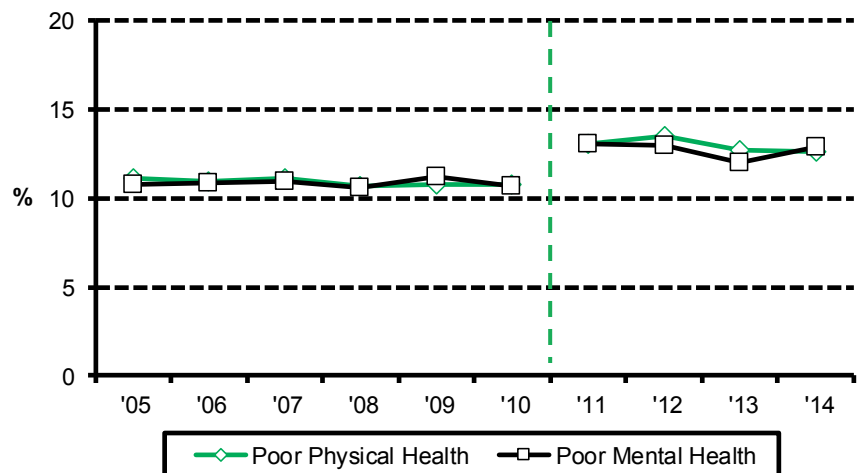
- ◆ In 2014, an estimated 12.6% of Michigan adults reported poor physical health and 12.9% reported poor mental health.
- ◆ Poor physical health increased with age, while poor mental health decreased with age.
- ◆ Both poor physical health and poor mental health decreased with increasing household income level.
- ◆ Females (14.7%) reported a higher prevalence of poor mental health than males (11.0%).
- ◆ Black, non-Hispanic adults (15.5%) reported a higher prevalence of poor physical health than White, non-Hispanic adults (11.6%).
- ◆ Disabled adults (37.7% and 29.3%, respectively) were more likely to have reported both poor physical health and poor mental health than non-disabled adults (4.4% and 7.4%, respectively).
- ◆ The BRFSS methodology changes that were implemented in 2011 resulted in a spike in the prevalence of poor physical and mental health among Michigan adults, but these prevalences have plateaued since 2011.

Demographic Characteristics	Poor Physical Health ^a		Poor Mental Health ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	12.6	(11.8-13.6)	12.9	(11.9-14.0)
Age				
18 - 24	5.9	(4.0-8.6)	17.5	(14.0-21.7)
25 - 34	7.7	(5.5-10.5)	13.0	(10.3-16.2)
35 - 44	9.0	(7.0-11.5)	15.0	(12.1-18.4)
45 - 54	16.9	(14.6-19.5)	14.1	(12.0-16.5)
55 - 64	17.7	(15.7-19.9)	13.3	(11.5-15.3)
65 - 74	14.4	(12.4-16.7)	7.9	(6.3-9.9)
75 +	17.0	(14.5-19.8)	5.8	(4.4-7.7)
Gender				
Male	11.5	(10.2-12.9)	11.0	(9.6-12.5)
Female	13.7	(12.5-15.0)	14.7	(13.3-16.2)
Race/Ethnicity				
White non-Hispanic	11.6	(10.8-12.6)	12.1	(11.1-13.2)
Black non-Hispanic	15.5	(12.7-18.9)	14.9	(11.9-18.6)
Other non-Hispanic	14.6	(10.7-19.6)	15.9	(11.8-21.0)
Hispanic	16.1	(9.8-25.3)	18.6	(11.7-28.3)
Household Income				
< \$20,000	27.7	(24.4-31.3)	25.0	(21.6-28.7)
\$20,000 - \$34,999	15.3	(13.2-17.6)	13.7	(11.5-16.2)
\$35,000 - \$49,999	11.3	(9.3-13.8)	13.3	(10.7-16.4)
\$50,000 - \$74,999	7.0	(5.5-8.9)	8.5	(6.5-11.1)
≥ \$75,000	4.4	(3.5-5.6)	6.3	(5.1-7.9)
Health Insurance				
Insured	12.8	(11.9-13.8)	12.7	(11.7-13.9)
Uninsured	11.5	(8.7-14.9)	13.8	(10.9-17.4)
Disability				
Not disabled	4.4	(3.7-5.1)	7.4	(6.5-8.4)
Disabled	37.7	(35.1-40.3)	29.3	(26.6-32.0)

^a Among all adults, the proportion reporting 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.

^b Among all adults, the proportion reporting 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.

**Poor Physical and Mental Health
Michigan, 2005-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Disability

2014 MiBRFS

Through the Americans with Disabilities Act, an individual with a disability is defined as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history of such an impairment, or a person who is perceived by others as having such an impairment.⁴

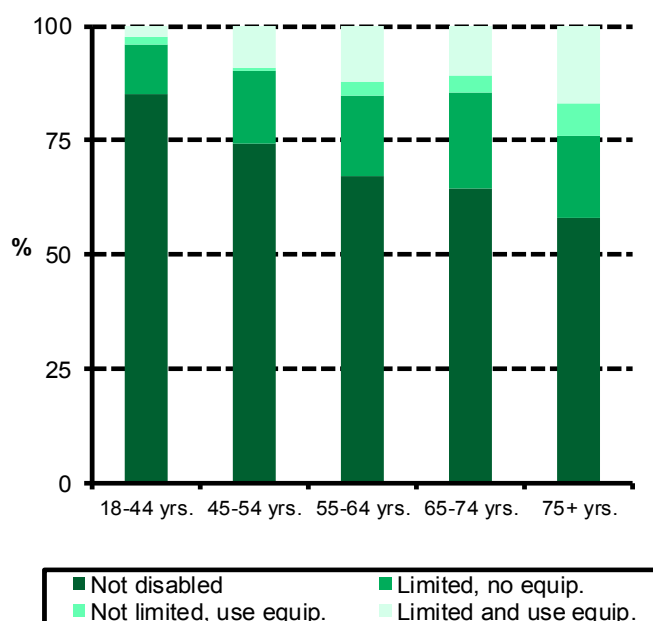
- ◆ In 2014, an estimated 24.9% of Michigan adults reported being disabled, which was defined as being limited in any activities because of physical, mental, or emotional problems or requiring the use of special equipment, such as a cane, a wheelchair, a special bed, or a special telephone due to a health problem.
- ◆ When looking at each component of the disability indicator, an estimated 22.5% of Michigan adults reported being limited in their activities, while 10.0% reported that they required the use of special equipment due to a health problem.
- ◆ The prevalence of disability increased with age and decreased with increasing household income level.
- ◆ The prevalence of disability was similar by gender and race/ethnicity.
- ◆ Insured adults (25.8%) were more likely to report having a disability than uninsured adults (18.0%).

Demographic Characteristics	Total Disability ^a	
	%	95% Confidence Interval
Total	24.9	(23.8-26.1)
Age		
18 - 24	10.0	(7.4-13.5)
25 - 34	15.6	(12.7-19.0)
35 - 44	18.8	(15.7-22.2)
45 - 54	25.6	(23.0-28.5)
55 - 64	33.1	(30.6-35.6)
65 - 74	36.0	(33.3-38.9)
75 +	42.1	(38.8-45.5)
Gender		
Male	25.1	(23.3-26.9)
Female	24.8	(23.3-26.3)
Race/Ethnicity		
White non-Hispanic	24.9	(23.7-26.2)
Black non-Hispanic	25.2	(21.7-29.0)
Other non-Hispanic	22.8	(18.3-28.1)
Hispanic	23.3	(16.2-32.3)
Household Income		
< \$20,000	45.2	(41.4-49.1)
\$20,000 - \$34,999	29.4	(26.6-32.2)
\$35,000 - \$49,999	23.6	(20.8-26.7)
\$50,000 - \$74,999	16.1	(13.8-18.8)
≥ \$75,000	14.0	(12.4-15.8)
Health Insurance		
Insured	25.8	(24.6-27.0)
Uninsured	18.0	(14.6-22.0)

^a Among all adults, the proportion reporting being limited in any activities because of physical, mental, or emotional problems, or reporting that they required the use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem.

- ◆ When assessing disability by age group and severity, Michigan adults 75 years and older reported more severe disability (i.e., both activities limited and use of special equipment) when compared to all other age groups.

**Disability by Age Group and Severity
Michigan, 2014**





Weight Status

2014 MiBRFS

Overweight and obesity have been proven to increase the risk of many diseases and health conditions such as high blood pressure, diabetes, coronary heart disease, stroke, gallbladder disease, high cholesterol, and some forms of cancer.⁵ The medical care costs associated with adult obesity in the United States is projected to be in the \$150 billion range.⁶ Overweight is defined as having a body mass index (BMI) between 25.0 and 29.9, and obesity is defined as a BMI greater than or equal to 30.0.

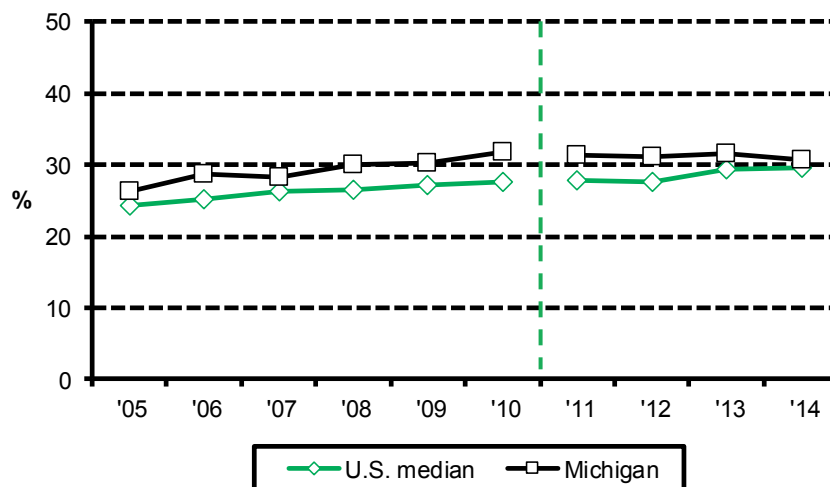
- ◆ In 2014, an estimated 30.7% of Michigan adults were classified as obese, with an additional 34.9% of Michigan adults being classified as overweight. The prevalence of obesity in Michigan is slightly higher than the U.S. median prevalence (29.6%), while the prevalence of overweight is comparable to that of the U.S. median (35.3%).
- ◆ The prevalence of obesity increased through the 65-74 year age group and then dropped within the 75+ years age group.
- ◆ The prevalence of obesity was similar by gender and health insurance status.
- ◆ In previous years, the prevalence of obesity among Black, non-Hispanic adults was significantly higher than that of White, non-Hispanic adults. In 2014, the prevalence of obesity is similar by race/ethnicity.
- ◆ Disabled adults (43.4%) were more likely to be classified as obese than non-disabled adults (26.5%)
- ◆ Adults reporting no leisure time physical activity (37.8% [35.1-40.6]) were more likely to report being obese than those who were physically active (28.3% [26.9-29.7]).
- ◆ The HP 2020 target for obesity among adults is set at 30.5%. In order to meet this target, the obesity prevalence among Michigan adults will need to decrease by only one tenth of a percentage point during the next six years.⁷

Demographic Characteristics	Obese ^a	
	%	95% Confidence Interval
Total	30.7	(29.4-32.0)
Age		
18 - 24	11.6	(8.9-14.9)
25 - 34	29.0	(25.2-33.2)
35 - 44	33.2	(29.4-37.2)
45 - 54	36.4	(33.4-39.4)
55 - 64	36.2	(33.6-38.8)
65 - 74	38.7	(35.9-41.6)
75 +	24.6	(21.7-27.7)
Gender		
Male	30.8	(29.0-32.8)
Female	30.6	(28.9-32.3)
Race/Ethnicity		
White non-Hispanic	30.2	(28.8-31.6)
Black non-Hispanic	33.6	(29.6-37.7)
Other non-Hispanic	27.2	(22.1-33.0)
Hispanic	36.8	(27.8-46.9)
Household Income		
< \$20,000	32.2	(28.8-35.8)
\$20,000 - \$34,999	35.9	(32.8-39.0)
\$35,000 - \$49,999	32.8	(29.4-36.3)
\$50,000 - \$74,999	30.7	(27.4-34.2)
≥ \$75,000	27.5	(25.2-29.9)
Health Insurance		
Insured	31.0	(29.7-32.3)
Uninsured	29.0	(24.6-33.9)
Disability		
Not disabled	26.5	(25.1-28.0)
Disabled	43.4	(40.8-46.1)

Note: BMI, body mass index, is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/(height in meters)²]. Weight and height were self-reported. Pregnant women were excluded.

^a Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

Obesity U.S. vs. Michigan, 2005-2014



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

No Health Care Coverage

Adults who do not have health care coverage are less likely to access health care services and are more likely to delay getting needed medical attention.⁸

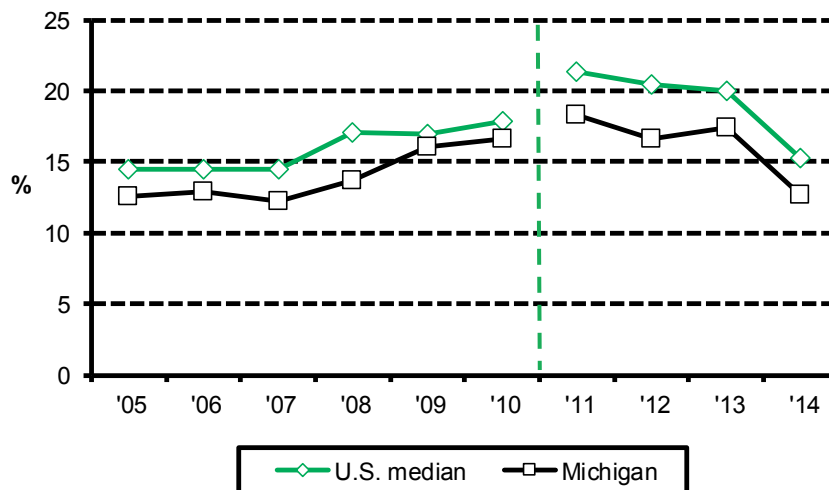
- ◆ In 2014, an estimated 12.7% of Michigan adults aged 18-64 years reported having no health care coverage. The prevalence of no health care coverage among Michigan adults 18-64 years of age is nearly three percentage points less than the U.S. median prevalence (15.3%).⁷
- ◆ The prevalence of no health care coverage decreased with age and increasing household income level.
- ◆ Males (15.1%) reported a significantly higher prevalence of no health care coverage than females (10.3%), while Black, non-Hispanic (17.6%) and Hispanic adults (24.5%) reported a higher prevalence than White, non-Hispanic adults (11.3%).
- ◆ The prevalence of no health care coverage was similar by disability status.
- ◆ The HP 2020 target for health care coverage is to have 100% of adults insured by 2020. Since the prevalence of no health care coverage among Michigan adults 18-64 years of age is currently at 12.7%, this prevalence will need to decrease by more than 2.1 percentage points each year in order to meet the HP 2020 goal.⁷

No Health Care Coverage Among Adults 18-64 Years^a

Demographic Characteristics	%	95% Confidence Interval
Total	12.7	(11.6-14.0)
Age		
18 - 24	13.8	(10.8-17.4)
25 - 34	17.8	(14.6-21.5)
35 - 44	13.6	(11.0-16.6)
45 - 54	10.8	(8.9-13.1)
55 - 64	8.6	(7.1-10.5)
Gender		
Male	15.1	(13.3-17.1)
Female	10.3	(9.0-11.9)
Race/Ethnicity		
White non-Hispanic	11.3	(10.1-12.6)
Black non-Hispanic	17.6	(14.0-21.9)
Other non-Hispanic	11.6	(7.9-16.6)
Hispanic	24.5	(16.6-34.6)
Household Income		
< \$20,000	23.1	(19.5-27.1)
\$20,000 - \$34,999	22.3	(18.9-26.2)
\$35,000 - \$49,999	12.7	(9.8-16.2)
\$50,000 - \$74,999	6.4	(4.6-9.0)
≥ \$75,000	2.7	(1.8-4.0)
Disability		
Not disabled	13.4	(12.0-14.8)
Disabled	10.4	(8.3-12.8)

^a Among adults aged 18-64 years, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare or Indian Health Services.

**No Health Care Coverage
Among Adults Aged 18 to 64 Years
U.S. vs. Michigan, 2005-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

No Dental Care Coverage

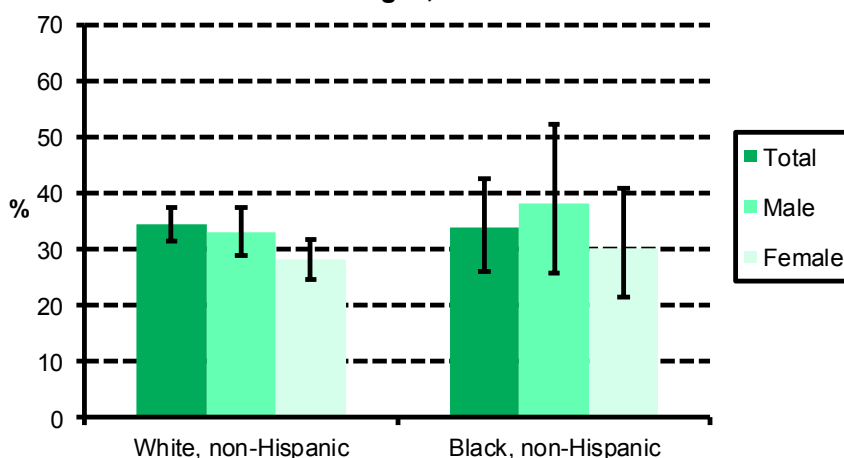
For every person without medical insurance, there are nearly three people without dental insurance.⁹ Among those without dental coverage, only half of these individuals report having had a dental checkup within the past year.¹⁰

- ◆ In 2014, an estimated 34.3% of Michigan adults reported having no dental care coverage.
- ◆ The prevalence of no dental care coverage varied by age, but was lowest among adults 45-64 years of age.
- ◆ The prevalence of no dental care coverage decreased with increasing household income level.
- ◆ The prevalence of no dental care coverage was similar by gender and race/ethnicity
- ◆ Despite having similar health insurance prevalence estimates, disabled adults (40.7%) were more likely to report not having dental care coverage than non-disabled adults (32.3%).
- ◆ Black, non-Hispanic males reported the highest prevalence of no dental care coverage (51.8%).
- ◆ The prevalence of no dental care coverage was significantly higher among White, non-Hispanic males (34.8%) than White, non-Hispanic females (25.9%).
- ◆ The prevalence of no dental care coverage among White, non-Hispanic and Black, non-Hispanic adults was similar by gender.

Demographic Characteristics	No Dental Care Coverage ^a	
	%	95% Confidence Interval
Total	34.3	(31.7-37.0)
Age		
18 - 24	30.6	(22.8-39.7)
25 - 34	40.8	(32.8-49.4)
35 - 44	35.3	(27.9-43.5)
45 - 54	28.7	(23.6-34.5)
55 - 64	29.7	(24.9-35.0)
65 - 74	37.3	(32.1-42.8)
75 +	45.0	(38.4-51.7)
Gender		
Male	36.9	(33.0-41.0)
Female	31.9	(28.6-35.4)
Race/Ethnicity		
White non-Hispanic	34.4	(31.6-37.4)
Black non-Hispanic	33.9	(26.2-42.6)
Other non-Hispanic	25.0	(15.6-37.4)
Hispanic	38.5	(23.9-55.4)
Household Income		
< \$20,000	54.1	(46.5-61.4)
\$20,000 - \$34,999	45.9	(39.5-52.5)
\$35,000 - \$49,999	29.7	(23.8-36.3)
\$50,000 - \$74,999	27.2	(20.8-34.7)
≥ \$75,000	17.1	(13.5-21.4)
Disability		
Not disabled	32.3	(29.3-35.4)
Disabled	40.7	(35.8-45.8)

^a Among all adults, the proportion who reported having no dental care coverage at some point within the past 12 months.

**No Dental Coverage by Race and Gender
Michigan, 2014**





2014 MiBRFS

Limited Health Care Coverage

Two additional indicators related to health care access are: 1) not having a personal doctor or health care provider and 2) having had a time during the past 12 months when you needed to see a doctor but could not because of the cost. Increases in access to primary care have been shown to substantially improve health-related outcomes.¹¹

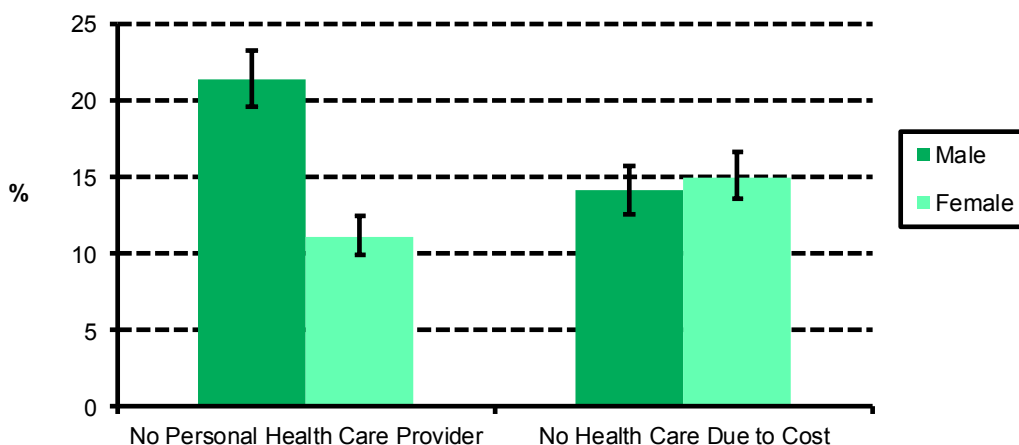
- ◆ In 2014, an estimated 16.1% of Michigan adults reported not having a personal health care provider, while 14.6% reported not seeing the doctor within the past 12 months due to cost.
- ◆ The prevalences of both of these indicators decreased with age and increasing household income level.
- ◆ Males (21.4%) were more likely than females (11.1%) to not have a personal health care provider.
- ◆ Both Black, non-Hispanic (22.6% and 19.1%, respectively) and Hispanic adults (25.1% and 29.9%, respectively) were more likely than White, non-Hispanic adults (14.2% and 13.0%, respectively) to not have a personal health care provider and to not have seen a doctor within the past 12 months due to cost.
- ◆ Uninsured adults (54.6% and 43.7%, respectively) were more likely to not have a personal health care provider and to not have seen a doctor within the past 12 months due to cost when compared to insured adults (11.7% and 11.3%, respectively).

Demographic Characteristics	No Personal Health Care Provider ^a		No Health Care Access Due to Cost ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	16.1	(15.0-17.3)	14.6	(13.6-15.7)
Age				
18 - 24	27.0	(23.1-31.3)	13.1	(10.3-16.7)
25 - 34	33.0	(29.1-37.2)	23.5	(20.1-27.4)
35 - 44	18.4	(15.4-22.0)	17.3	(14.3-20.9)
45 - 54	13.2	(11.2-15.6)	16.3	(14.1-18.8)
55 - 64	9.0	(7.4-10.8)	13.9	(12.0-16.0)
65 - 74	3.9	(2.8-5.5)	6.8	(5.4-8.5)
75 +	2.7	(1.9-4.0)	4.3	(2.9-6.4)
Gender				
Male	21.4	(19.6-23.3)	14.1	(12.6-15.7)
Female	11.1	(9.9-12.5)	15.0	(13.6-16.6)
Race/Ethnicity				
White non-Hispanic	14.2	(13.1-15.5)	13.0	(11.9-14.1)
Black non-Hispanic	22.6	(18.8-26.9)	19.1	(15.7-23.0)
Other non-Hispanic	21.3	(16.7-26.8)	15.1	(11.3-19.9)
Hispanic	25.1	(17.9-34.0)	29.9	(21.6-39.8)
Household Income				
< \$20,000	24.1	(20.8-27.8)	26.9	(23.5-30.6)
\$20,000 - \$34,999	20.5	(17.8-23.5)	22.9	(20.1-26.0)
\$35,000 - \$49,999	12.8	(10.3-15.8)	11.6	(9.4-14.1)
\$50,000 - \$74,999	14.1	(11.5-17.1)	10.1	(8.0-12.6)
≥ \$75,000	9.8	(8.2-11.7)	4.8	(3.7-6.3)
Health Insurance				
Insured	11.7	(10.7-12.8)	11.3	(10.4-12.4)
Uninsured	54.6	(49.7-59.5)	43.7	(38.8-48.7)
Disability				
Not disabled	17.7	(16.4-19.1)	12.3	(11.2-13.6)
Disabled	11.2	(9.3-13.4)	20.8	(18.6-23.2)

^a Among all adults, the proportion reporting that they did not have anyone that they thought of as their personal doctor or health care provider

^b Among all adults, the proportion reporting that in the past 12 months, they could not see a doctor when they needed to due to the cost.

**Health Care Access Indicators by Gender
Michigan, 2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

No Leisure Time Physical Activity

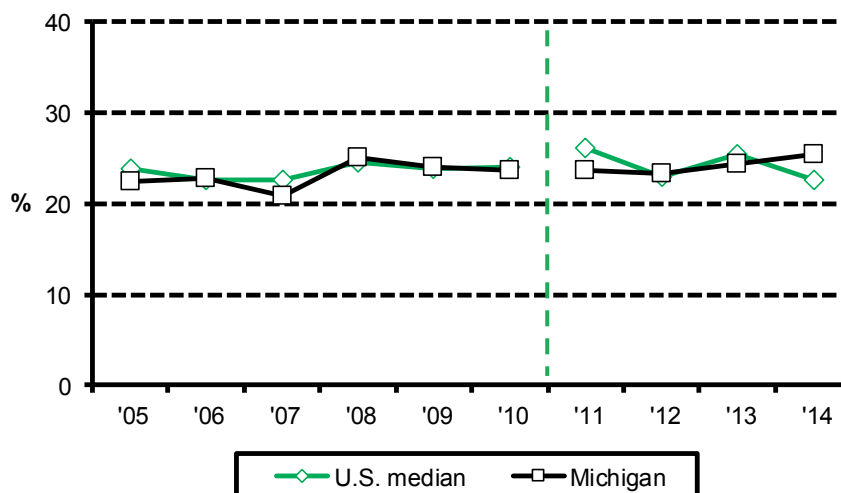
Regular physical activity among adults has been shown to reduce the risk of many diseases including cardiovascular disease, diabetes, colon and breast cancers, and osteoporosis. Keeping physically active also helps to control weight, maintain healthy bones, muscles, and joints, and relieve symptoms of depression.¹²

- ◆ In 2014, an estimated 25.5% of Michigan adults reported no leisure time physical activity within the past month. The prevalence of no leisure time physical activity among Michigan adults is slightly higher than the U.S. median prevalence (22.6%) for this indicator.
- ◆ The prevalence of no leisure time physical activity increased with age and decreased with increasing household income level.
- ◆ White, non-Hispanic adults (23.6%) reported a significantly lower prevalence of no leisure time physical activity than Black, non-Hispanic adults (34.3%), while disabled adults (39.3%) reported a higher prevalence than non-disabled adults (20.5%).
- ◆ The prevalence of no leisure time physical activity was similar by gender.
- ◆ The HP 2020 target for no leisure time physical activity among adults is set at 32.6%. The prevalence of no leisure time physical activity among Michigan adults is currently more than seven percentage points below this goal, so if Michigan can maintain the current prevalence for this indicator the healthy people target will easily be met by 2020.⁷

Demographic Characteristics	No Leisure Time Physical Activity ^a	
	%	95% Confidence Interval
Total	25.5	(24.3-26.7)
Age		
18 - 24	16.3	(13.0-20.3)
25 - 34	22.9	(19.4-26.8)
35 - 44	23.6	(20.1-27.5)
45 - 54	24.8	(22.1-27.8)
55 - 64	27.3	(24.9-29.8)
65 - 74	29.6	(27.0-32.4)
75 +	41.0	(37.7-44.5)
Gender		
Male	23.6	(21.9-25.5)
Female	27.2	(25.5-28.9)
Race/Ethnicity		
White non-Hispanic	23.6	(22.4-24.9)
Black non-Hispanic	34.3	(30.1-38.7)
Other non-Hispanic	26.7	(21.3-32.9)
Hispanic	28.2	(20.0-38.3)
Household Income		
< \$20,000	40.0	(36.3-43.9)
\$20,000 - \$34,999	30.7	(27.8-33.8)
\$35,000 - \$49,999	27.2	(23.9-30.7)
\$50,000 - \$74,999	20.2	(17.4-23.3)
≥ \$75,000	13.5	(11.7-15.5)
Health Insurance		
Insured	24.8	(23.5-26.0)
Uninsured	31.2	(26.7-36.1)
Disability		
Not disabled	20.5	(19.1-21.9)
Disabled	39.3	(36.7-41.9)

^a Among all adults, the proportion reporting they had not participated in any leisure time physical activities or exercises during the past month, such as running, calisthenics, golf, gardening, or walking for exercise.

**No Leisure Time Physical Activity
U.S. vs. Michigan, 2005-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Cigarette Smoking

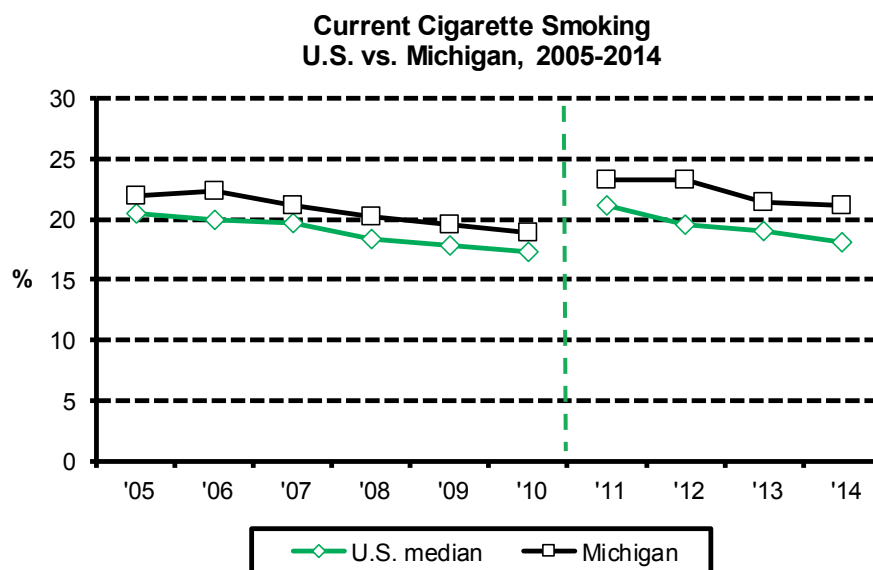
2014 MiBRFS

Cigarette smoking is the leading cause of preventable death in the United States, accounting for more than 480,000 deaths each year.¹³

- ◆ In 2014, an estimated 21.2% of Michigan adults reported that they currently smoke cigarettes on a regular basis.
- ◆ Current smoking decreased with both increasing age and household income level.
- ◆ Males (23.7%) reported a higher prevalence of current smoking than females (18.9%), and White, non-Hispanic adults (20.1%) reported a lower prevalence than Hispanic adults (32.4%).
- ◆ Disabled adults (26.8%) were more likely to have reported current smoking than non-disabled adults (19.3%).
- ◆ Uninsured adults (38.8%) were more likely to have reported current smoking than insured adults (19.3%).
- ◆ The HP 2020 target for current smoking among adults is set at 12.0%. In order to meet this target, the current smoking prevalence among Michigan adults will need to decrease by 9.2 percentage points during the next six years.⁷
- ◆ The BRFSS methodology changes that were implemented in 2011 resulted in a spike in the prevalence of current smoking among Michigan adults, but the prevalence of current smoking has declined by two percentage points since 2011.
- ◆ In 2014, the prevalence of current smoking among Michigan adults (21.2%) was higher than the U.S. median prevalence (18.1%).

Demographic Characteristics	Current Smoking ^a	
	%	95% Confidence Interval
Total	21.2	(20.0-22.5)
Age		
18 - 24	21.5	(17.7-25.8)
25 - 34	31.4	(27.4-35.7)
35 - 44	25.5	(22.0-29.4)
45 - 54	24.0	(21.3-26.9)
55 - 64	20.4	(18.2-22.9)
65 - 74	11.1	(9.2-13.3)
75 +	6.0	(4.5-8.0)
Gender		
Male	23.7	(21.8-25.7)
Female	18.9	(17.3-20.5)
Race/Ethnicity		
White non-Hispanic	20.1	(18.8-21.5)
Black non-Hispanic	22.3	(18.7-26.4)
Other non-Hispanic	26.2	(20.7-32.5)
Hispanic	32.4	(23.5-42.8)
Household Income		
< \$20,000	36.4	(32.6-40.3)
\$20,000 - \$34,999	26.2	(23.2-29.5)
\$35,000 - \$49,999	21.3	(18.2-24.7)
\$50,000 - \$74,999	18.3	(15.4-21.7)
≥ \$75,000	10.8	(9.1-12.7)
Health Insurance		
Insured	19.3	(18.1-20.6)
Uninsured	38.8	(33.9-43.9)
Disability		
Not disabled	19.3	(17.9-20.8)
Disabled	26.8	(24.3-29.4)

^a Among all adults, the proportion reporting that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days.



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Hookah Use

2014 MiBRFS

Hookah (water pipe) use has become a popular tobacco smoking method within the United States, with increasing popularity among the college student population. Hookah use should not be considered as a safe alternative to smoking cigarettes. The charcoal used to heat the tobacco and the smoke generated from hookahs contain many toxic agents that are known to cause lung, bladder, and oral cancers.¹⁴

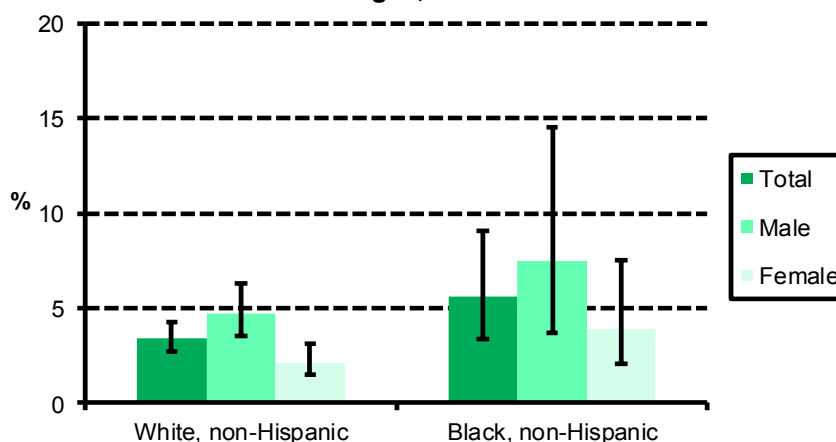
- ◆ In 2014, an estimated 4.1% of Michigan adults reported that they smoked tobacco using a hookah on one or more days out of the previous month
- ◆ Current hookah use was highest among the 18-24 year old age group (12.0%).
- ◆ Males (5.5%) were more likely to report current hookah use than females (2.9%).
- ◆ Current hookah use decreased with increasing household income level.
- ◆ Current hookah use was similar by health insurance and disability status.
- ◆ White, non-Hispanic males (4.7%) reported a significantly higher prevalence of current hookah use than White, non-Hispanic females (2.1%).
- ◆ The prevalence of current hookah use among Black, non-Hispanic adults was similar by gender.

Demographic Characteristics	Current Hookah Use ^a	
	%	95% Confidence Interval
Total	4.1	(3.4-5.0)
Age		
18 - 24	12.0	(8.6-16.7)
25 - 34	6.6	(4.3-9.8)
35 - 44	-- ^b	-- ^b
45 - 54	3.1	(2.0-4.8)
55 - 64	3.7	(2.2-6.0)
65 - 74	-- ^b	-- ^b
75 +	-- ^b	-- ^b
Gender		
Male	5.5	(4.2-7.0)
Female	2.9	(2.2-3.9)
Race/Ethnicity		
White non-Hispanic	3.4	(2.7-4.3)
Black non-Hispanic	5.6	(3.4-9.1)
Other non-Hispanic	-- ^b	-- ^b
Hispanic	-- ^b	-- ^b
Household Income		
< \$20,000	8.7	(6.2-12.3)
\$20,000 - \$34,999	4.2	(2.7-6.6)
\$35,000 - \$49,999	3.7	(2.2-6.3)
\$50,000 - \$74,999	3.9	(2.3-6.6)
≥ \$75,000	2.2	(1.2-3.9)
Health Insurance		
Insured	3.9	(3.2-4.8)
Uninsured	6.5	(3.8-11.0)
Disability		
Not disabled	4.0	(3.2-5.0)
Disabled	4.8	(3.3-6.8)

^a Among all adults, the proportion reporting smoking tobacco using a hookah, narghile, or water pipe on one or more days during the previous thirty days.

^b Suppressed due to a denominator of < 50 and/or a relative standard error > 30%.

**Current Hookah Use by Race and Gender
Michigan, 2014**





2014 MiBRFS

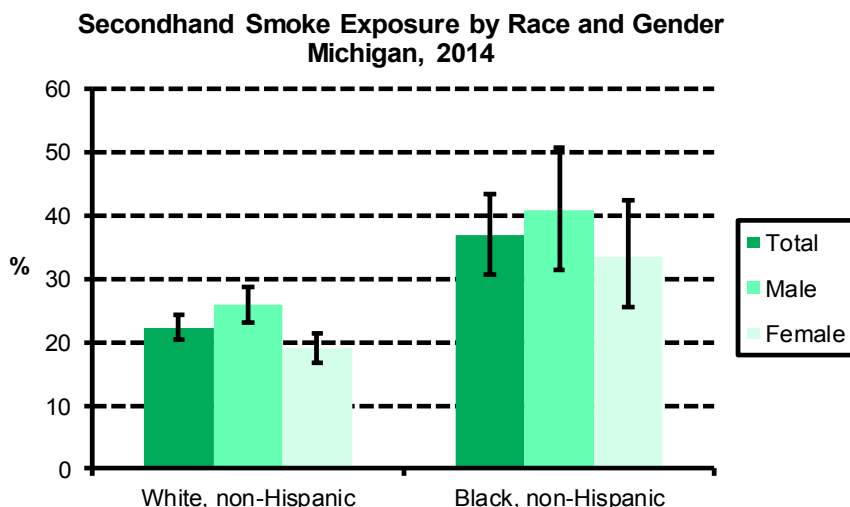
Secondhand Smoke Exposure

Among adults who have never smoked, secondhand smoke exposure causes an estimated 34,000 heart disease deaths and 7,300 lung cancer deaths within the United States each year.¹³

- ◆ In 2014, an estimated 24.9% of Michigan adults reported that they were exposed to secondhand smoke in their home or car within the past seven days.
- ◆ 11.5% (95% CI: 9.2-14.3) of Michigan adults with children living in their households reported being exposed to secondhand smoke in their home within the past seven days.
- ◆ Secondhand smoke exposure decreased with both increasing age and household income level.
- ◆ Secondhand smoke exposure was similar by gender.
- ◆ Black, non-Hispanic (36.8%) and Hispanic adults (36.7%) reported a significantly higher prevalence of secondhand smoke exposure than White, non-Hispanic adults (22.3%).
- ◆ Uninsured and disabled adults (44.3% and 30.1%, respectively) were more likely to have reported recent secondhand smoke exposure than insured and non-disabled adults (22.9% and 23.3%, respectively).
- ◆ White, non-Hispanic females reported the lowest prevalence of recent secondhand smoke exposure at 19.0%. White, non-Hispanic males and females (25.9% and 19.0%, respectively) reported lower prevalences of recent secondhand smoke exposure than Black, non-Hispanic males (40.7%).

Demographic Characteristics	Secondhand Smoke Exposure ^a	
	%	95% Confidence Interval
Total	24.9	(23.2-26.8)
Age		
18 - 24	38.9	(32.7-45.5)
25 - 34	36.1	(30.6-42.0)
35 - 44	21.7	(17.0-27.4)
45 - 54	26.5	(22.8-30.6)
55 - 64	22.9	(19.8-26.2)
65 - 74	12.0	(9.8-14.6)
75 +	9.8	(7.1-13.6)
Gender		
Male	28.0	(25.4-30.8)
Female	22.1	(19.8-24.4)
Race/Ethnicity		
White non-Hispanic	22.3	(20.5-24.2)
Black non-Hispanic	36.8	(30.7-43.4)
Other non-Hispanic	26.8	(19.1-36.1)
Hispanic	36.7	(25.4-49.7)
Household Income		
< \$20,000	42.5	(37.4-47.9)
\$20,000 - \$34,999	31.0	(26.8-35.5)
\$35,000 - \$49,999	23.6	(19.4-28.2)
\$50,000 - \$74,999	21.0	(16.8-25.9)
≥ \$75,000	12.7	(10.4-15.4)
Health Insurance		
Insured	22.9	(21.2-24.7)
Uninsured	44.3	(37.3-51.4)
Disability		
Not disabled	23.3	(21.3-25.5)
Disabled	30.1	(26.8-33.6)

^a Among all adults, the proportion reporting being exposed to secondhand smoke in their home or a car within the past seven days.



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

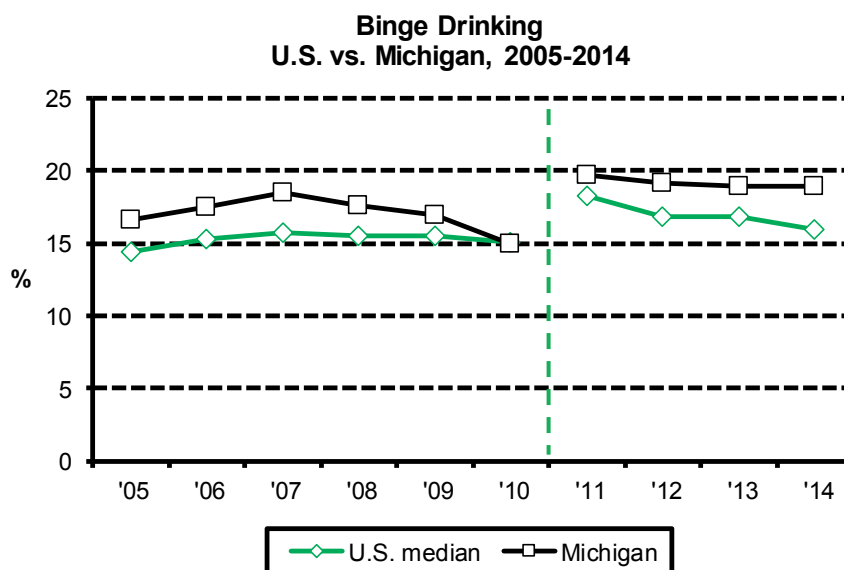
Alcohol Consumption

Excessive alcohol use contributes to approximately 88,000 deaths each year within the United States.¹⁵ Binge drinking is defined as consuming five or more alcoholic drinks per occasion (for men) or four or more alcoholic drinks per occasion (for women) at least once in the past month. Heavy drinking is defined as consuming an average of more than two alcoholic drinks per day for men or more than one alcoholic drink per day for women in the past month.

- ◆ In 2014, an estimated 57.0% (95% CI: 55.6-58.3) of Michigan adults reported some form of alcohol consumption within the past month. Furthermore, an estimated 18.9% of Michigan adults reported binge drinking on at least one occasion within the past month, and 6.8% (95% CI: 6.1-7.6) reported heavy drinking over the past month.
- ◆ Both binge drinking and heavy drinking are more prevalent within the younger age groups and decrease significantly within the older age groups.
- ◆ Males (24.0%) reported a significantly higher prevalence of binge drinking than females (14.3%).
- ◆ Black, non-Hispanic adults (12.8%) reported a significantly lower prevalence of binge drinking than White, non-Hispanic adults (19.6%).
- ◆ Disabled adults (12.8%) reported a significantly lower prevalence of binge drinking than non-disabled adults (21.1%).
- ◆ The prevalence of binge drinking among Michigan adults has decreased slightly since the BRFSS methodology changes in 2011, but remains higher than the U.S. median prevalence.

Demographic Characteristics	Binge Drinking ^a	
	%	95% Confidence Interval
Total	18.9	(17.8-20.1)
Age		
18 - 24	29.3	(25.2-33.7)
25 - 34	29.2	(25.4-33.3)
35 - 44	23.1	(19.7-26.9)
45 - 54	21.3	(18.8-23.9)
55 - 64	13.0	(11.3-15.0)
65 - 74	6.7	(5.4-8.3)
75 +	2.5	(1.7-3.6)
Gender		
Male	24.0	(22.1-25.9)
Female	14.3	(12.9-15.8)
Race/Ethnicity		
White non-Hispanic	19.6	(18.3-20.9)
Black non-Hispanic	12.8	(9.8-16.5)
Other non-Hispanic	17.8	(13.3-23.4)
Hispanic	29.2	(20.4-39.9)
Household Income		
< \$20,000	17.6	(14.5-21.2)
\$20,000 - \$34,999	16.9	(14.3-19.8)
\$35,000 - \$49,999	17.5	(14.7-20.8)
\$50,000 - \$74,999	20.8	(17.7-24.2)
≥ \$75,000	24.1	(21.9-26.5)
Health Insurance		
Insured	18.7	(17.5-20.0)
Uninsured	20.6	(16.7-25.1)
Disability		
Not disabled	21.1	(19.7-22.5)
Disabled	12.8	(10.8-15.0)

^a Among all adults, the proportion reporting consumption of five or more drinks per occasion (for males) or four or more drinks per occasion (for women) at least once in the previous month.



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Motor Vehicle Safety

Seatbelt use has been proven to save lives and prevent injuries. In 2013, 21,132 people died in the United States in motor vehicle traffic crashes, of which only 46% were restrained. In 2013, seat belts saved an estimated 12,584 lives among motor vehicle occupants 5 years of age and older within the United States.¹⁶

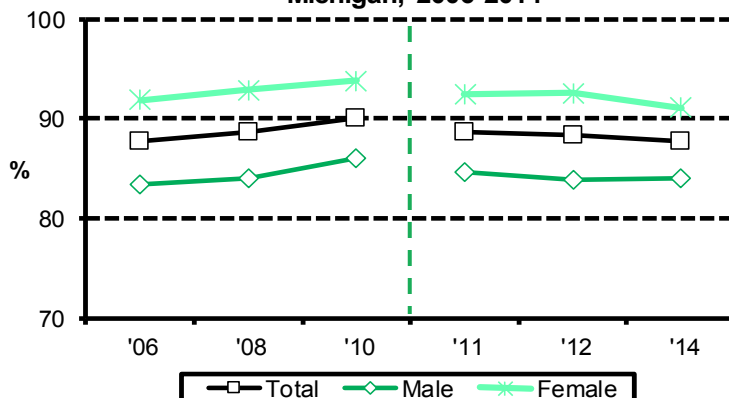
In addition to seatbelt use, driving after drinking is another risk indicator for motor vehicle safety. In Michigan, 3.1% of all crashes were reported to involve drinking in 2014. During this same time period, three out of every 10 fatal motor vehicle crashes involved drinking. Consumption of alcohol is a major factor in the more serious types of motor vehicle crashes.¹⁷

- ◆ In 2014, an estimated 87.7% of Michigan adults reported always using their seat belt when driving or riding in a car, while only 2.2% of Michigan adults reported driving after drinking within the past month.
- ◆ Seatbelt use increased slightly with age, while driving after drinking decreased within the older age groups.
- ◆ Males reported a significantly lower prevalence of seatbelt use (84.1% vs. 91.1%) and a significantly higher prevalence of driving after drinking (3.4% vs. 1.1%) compared to females.
- ◆ Adults with health insurance (88.6%) were more likely than uninsured adults (80.0%) to always wear their seatbelt.

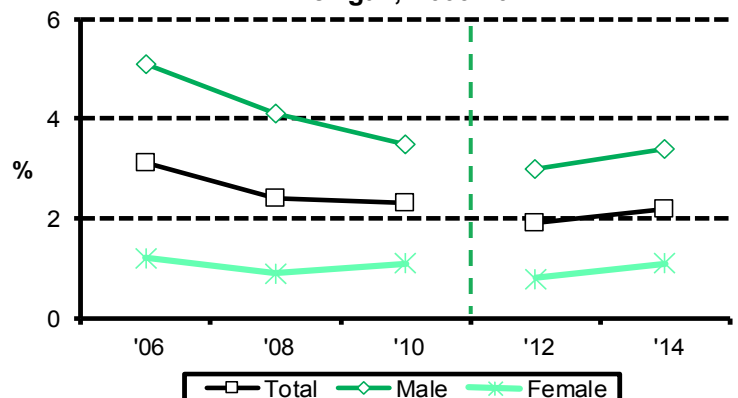
Demographic Characteristics	Always Uses a Seatbelt ^a		Drove Motor Vehicle After Drinking ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	87.7	(86.7-88.7)	2.2	(1.8-2.7)
Age				
18 - 24	78.0	(73.6-81.8)	2.5	(1.5-4.2)
25 - 34	83.3	(79.5-86.6)	2.0	(1.2-3.3)
35 - 44	88.2	(85.2-90.7)	3.7	(2.4-5.7)
45 - 54	90.0	(87.9-91.7)	2.8	(1.9-3.9)
55 - 64	90.9	(89.1-92.4)	1.7	(1.2-2.5)
65 - 74	91.9	(90.2-93.3)	1.6	(1.0-2.4)
75 +	92.4	(90.3-94.0)	-- ^c	-- ^c
Gender				
Male	84.1	(82.4-85.7)	3.4	(2.8-4.2)
Female	91.1	(89.8-92.3)	1.1	(0.7-1.6)
Race/Ethnicity				
White non-Hispanic	88.4	(87.2-89.4)	2.1	(1.7-2.6)
Black non-Hispanic	85.0	(81.5-88.0)	2.3	(1.3-4.0)
Other non-Hispanic	85.6	(80.5-89.6)	-- ^c	-- ^c
Hispanic	85.3	(74.9-91.8)	-- ^c	-- ^c
Household Income				
< \$20,000	83.4	(79.8-86.4)	1.7	(1.0-2.8)
\$20,000 - \$34,999	88.0	(85.6-90.0)	1.9	(1.2-3.0)
\$35,000 - \$49,999	86.6	(83.5-89.1)	2.8	(1.6-4.7)
\$50,000 - \$74,999	88.5	(85.9-90.8)	2.6	(1.7-4.1)
≥ \$75,000	89.6	(87.7-91.3)	2.7	(2.0-3.7)
Health Insurance				
Insured	88.6	(87.6-89.6)	2.0	(1.7-2.5)
Uninsured	80.0	(75.5-83.9)	3.5	(2.1-5.8)
Disability				
Not disabled	87.9	(86.7-89.1)	2.4	(1.9-2.9)
Disabled	87.2	(85.1-89.1)	1.7	(1.1-2.7)

^a Among all adults, the proportion reporting always using a seatbelt within driving or riding in a car.
^b Among all adults, the proportion reporting that they had driven when they had too much to drink at least once in the previous month.
^c Suppressed due to a denominator of < 50 and/or a relative standard error > 30%.

**Always Use A Seatbelt by Gender
Michigan, 2006-2014**



**Drove Motor Vehicle After Drinking by Gender
Michigan, 2006-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Inadequate Sleep

2014 MiBRFS

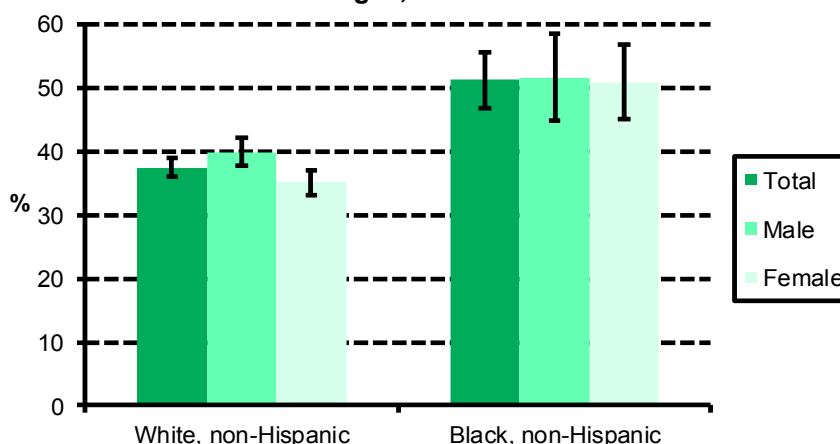
Inadequate sleep is a serious public health problem that has been linked to motor vehicle crashes, industrial disasters, and chronic conditions such as diabetes, cardiovascular disease, obesity, and depression.¹⁸

- ◆ In 2014, an estimated 40.2% of Michigan adults reported getting less than an adequate amount of sleep on an average night. Inadequate sleep was defined as less than eight hours per night for adults aged 18-21 years, and less than seven hours for adults aged 22 years and older.
- ◆ The prevalence of inadequate sleep decreased with increasing age and household income level.
- ◆ Males (42.4%) reported a significantly higher prevalence of inadequate sleep than females (38.1%).
- ◆ Black, non-Hispanic (51.2%) and Hispanic adults (50.1%) reported a significantly higher prevalence of inadequate sleep than White, non-Hispanic adults (37.4%).
- ◆ Uninsured and disabled adults (49.8% and 48.0%, respectively) were more likely to have reported inadequate sleep than insured and non-disabled adults (39.1% and 37.6%, respectively).
- ◆ White, non-Hispanic males (39.9%) reported a higher prevalence of inadequate sleep than White, non-Hispanic females (35.1%).
- ◆ Black, non-Hispanic adults reported the highest prevalence of inadequate sleep (51.2%), but the prevalence among Black, non-Hispanic adults was similar by gender.

Demographic Characteristics	Inadequate Sleep ^a	
	%	95% Confidence Interval
Total	40.2	(38.8-41.6)
Age		
18 - 24	53.3	(48.6-58.0)
25 - 34	44.9	(40.8-49.2)
35 - 44	46.8	(42.8-50.8)
45 - 54	42.8	(39.8-45.9)
55 - 64	34.6	(32.1-37.2)
65 - 74	25.9	(23.4-28.5)
75 +	24.4	(21.5-27.5)
Gender		
Male	42.4	(40.3-44.5)
Female	38.1	(36.2-40.0)
Race/Ethnicity		
White non-Hispanic	37.4	(35.9-39.0)
Black non-Hispanic	51.2	(46.8-55.6)
Other non-Hispanic	46.8	(40.6-53.2)
Hispanic	50.1	(40.6-59.7)
Household Income		
< \$20,000	49.9	(46.0-53.8)
\$20,000 - \$34,999	41.8	(38.5-45.0)
\$35,000 - \$49,999	40.4	(36.7-44.1)
\$50,000 - \$74,999	37.6	(34.0-41.4)
≥ \$75,000	36.2	(33.6-38.8)
Health Insurance		
Insured	39.1	(37.7-40.6)
Uninsured	49.8	(44.8-54.8)
Disability		
Not disabled	37.6	(35.9-39.2)
Disabled	48.0	(45.3-50.7)

^a Among adults aged 18-21 years, the proportion reporting an average sleep time of less than eight hours per night, and among adults aged 22 years and older, the proportion reporting an average sleep time of less than seven hours per night..

**Inadequate Sleep by Race and Gender
Michigan, 2014**





2014 MiBRFS

Routine Checkup in Past Year

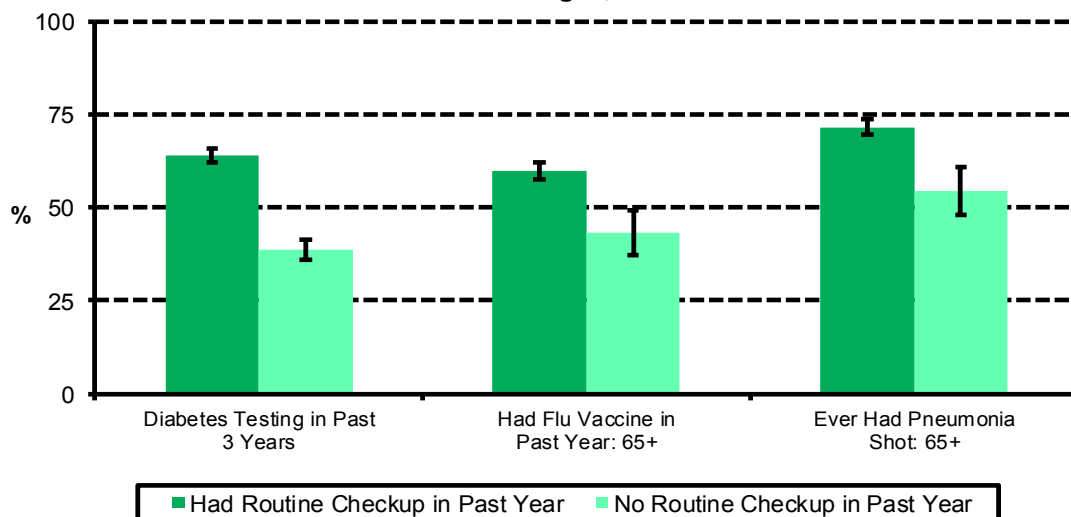
A yearly routine checkup is a great way to remain proactive about one's health. The benefits of having an annual checkup include early diagnosis and treatment of existing conditions and prevention of future medical problems.¹⁹

- ◆ In 2014, an estimated 71.8% of Michigan adults reported having a routine medical checkup within the past year.
- ◆ The prevalence of having a routine checkup within the past year increased with age.
- ◆ Males (66.6%) reported a significantly lower prevalence of having a routine checkup within the past year than females (76.6%).
- ◆ White, non-Hispanic adults (70.4%) reported a significantly lower prevalence of having had a routine checkup within the past year than did Black, non-Hispanic adults (80.4%).
- ◆ Insured and disabled adults (75.5% and 77.0%, respectively) were more likely to have had a routine checkup within the past year than uninsured and non-disabled adults (39.3% and 70.0%, respectively).
- ◆ Michigan adults who had a routine checkup within the past year were more likely to have had diabetes testing within the past three years [64.1% vs. 38.7%], a flu vaccine within the past year (65+ years) [59.7% vs. 43.1%], and to have ever had a pneumonia vaccine (65+ years) [71.6% vs. 54.5%] when compared to adults who had not had a routine checkup within the past year.

Demographic Characteristics	Had a Routine Checkup Within The Past Year ^a	
	%	95% Confidence Interval
Total	71.8	(70.5-73.0)
Age		
18 - 24	62.7	(58.1-67.1)
25 - 34	58.2	(54.0-62.3)
35 - 44	64.1	(60.1-67.9)
45 - 54	72.4	(69.5-75.0)
55 - 64	78.0	(75.7-80.1)
65 - 74	86.7	(84.6-88.6)
75 +	88.7	(86.3-90.7)
Gender		
Male	66.6	(64.6-68.6)
Female	76.6	(75.0-78.1)
Race/Ethnicity		
White non-Hispanic	70.4	(69.0-71.8)
Black non-Hispanic	80.4	(76.4-83.8)
Other non-Hispanic	69.7	(63.5-75.2)
Hispanic	71.5	(62.5-79.1)
Household Income		
< \$20,000	67.7	(63.9-71.3)
\$20,000 - \$34,999	70.7	(67.6-73.6)
\$35,000 - \$49,999	71.2	(67.6-74.7)
\$50,000 - \$74,999	67.6	(63.9-71.1)
≥ \$75,000	75.7	(73.3-77.9)
Health Insurance		
Insured	75.5	(74.2-76.8)
Uninsured	39.3	(34.5-44.3)
Disability		
Not disabled	70.0	(68.4-71.5)
Disabled	77.0	(74.5-79.3)

^a Among all adults, the proportion reporting a routine medical checkup within the past year.

Health Screenings and Immunizations by Routine Checkup Status Michigan, 2014



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Breast Cancer Screening

Breast cancer is currently the second leading cause of cancer deaths among women within the United States.²⁰ In 2012, there were 1,424 deaths among Michigan women due to breast cancer, second only to that of lung cancer.²¹ Early detection of breast cancer can occur through the use of screening tools such as mammography and clinical breast exams.

- ◆ In 2014, an estimated 75.9% of Michigan women 40 years and older reported having a mammogram within the past two years, while 47.8% reported having both a clinical breast exam and a mammogram within the past year.
- ◆ Breast cancer screening measures increased with household income level, but were similar by race/ethnicity.
- ◆ Insured adults (77.8%) were more likely than uninsured adults (43.6%) to have reported receiving a mammogram within the past two years.
- ◆ The HP 2020 target for having received a mammogram within the past two years among women aged 40 years and older is set at 81.1%.⁷ The prevalence for this indicator among Michigan women 40 years and older (75.9%) will need to increase by 5.2 percentage points during the next six years in order to meet the HP 2020 target.
- ◆ The prevalence of having had a mammogram within the past two years among Michigan women 40 years and older is slightly higher than the U.S. median prevalence for this indicator.

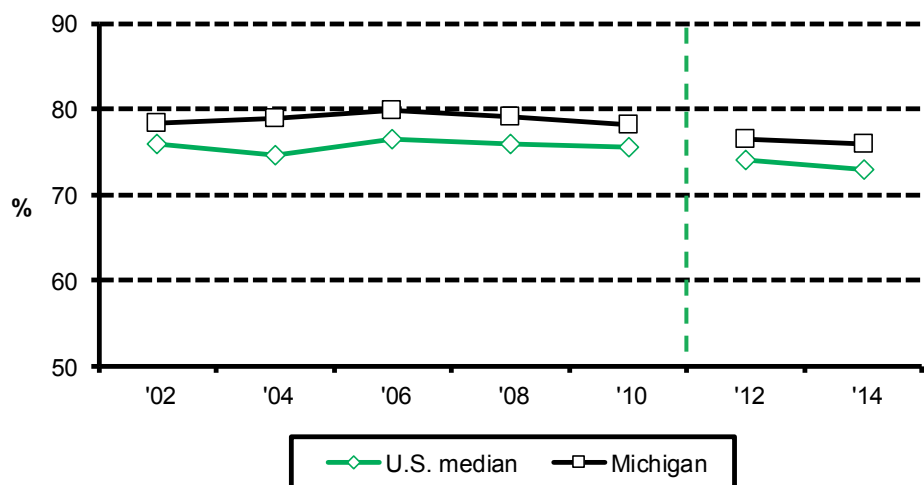
Demographic Characteristics	Had Mammogram in Past Two Years Among Women Aged 40 Years and Older ^a		Had Clinical Breast Exam and Mammogram in Past Year Among Women Aged 40 Years and Older ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	75.9	(74.1-77.6)	47.8	(45.8-49.8)
Age				
40 - 49	65.0	(60.2-69.6)	40.5	(35.9-45.3)
50 - 59	81.2	(78.1-84.0)	53.4	(49.7-57.1)
60 - 69	82.7	(79.7-85.3)	57.6	(54.1-61.1)
70 +	74.0	(70.9-77.0)	38.9	(35.7-42.3)
Race/Ethnicity				
White non-Hispanic	75.6	(73.7-77.5)	48.1	(46.0-50.2)
Black non-Hispanic	80.0	(74.0-84.9)	48.7	(41.9-55.6)
Other non-Hispanic	63.9	(50.9-75.1)	37.4	(26.4-49.8)
Hispanic	-- ^c	-- ^c	-- ^c	-- ^c
Household Income				
< \$20,000	63.0	(57.4-68.3)	32.5	(27.5-37.8)
\$20,000 - \$34,999	73.5	(69.2-77.4)	43.2	(38.8-47.7)
\$35,000 - \$49,999	78.0	(73.1-82.3)	50.2	(45.0-55.5)
\$50,000 - \$74,999	81.1	(76.2-85.1)	53.4	(48.1-58.7)
≥ \$75,000	82.3	(78.9-85.3)	58.3	(54.2-62.2)
Health Insurance				
Insured	77.8	(76.0-79.5)	49.5	(47.5-51.5)
Uninsured	43.6	(34.8-52.8)	20.1	(14.4-27.3)
Disability				
Not disabled	77.6	(75.4-79.6)	50.3	(47.9-52.8)
Disabled	71.9	(68.7-74.9)	42.1	(38.8-45.6)

^a Among women aged 40 years and older, the proportion who reported having a mammogram within the past two years.

^b Among women aged 40 years and older, the proportion who reported having a clinical breast exam and a mammogram within the past year.

^c Suppressed due to a denominator of < 50 and/or a relative standard error > 30%.

Had a Mammogram in the Past Two Years Among Women Aged 40 Years and Older U.S. vs. Michigan, 2002-2014



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Cervical Cancer Screening

Current guidelines for cervical cancer screening recommend that women 21 to 65 years of age receive a Pap test at least every three years. Women 30 to 65 years of age can also choose to lengthen their testing interval by having a Pap test and HPV testing combined every five years.²²

- ◆ In 2014, an estimated 88.9% of Michigan women aged 18 years and older reported ever having a Pap test, while 74.9% reported having had a Pap test within the past three years.
- ◆ The prevalence of appropriate cervical cancer screening increased with age until falling off in the oldest age group.
- ◆ The prevalence of appropriate cervical cancer screening was similar by race/ethnicity, but increased with household income level.
- ◆ Insured women (77.2%) were more likely to report appropriate cervical cancer screening than uninsured women (55.8%).
- ◆ The HP 2020 target for the proportion of women aged 18 years and older who have received a Pap test within the past three years is set at 93.0%.⁷ The prevalence of this indicator among Michigan women aged 18 years and older will need to increase by an average of three percentage points per year in order to meet the HP 2020 target.
- ◆ Over the past several years, the prevalence of appropriate cervical cancer screening among women 18 years and older has been on the decline in Michigan and the U.S. This decrease persists when looking only at Michigan women 18-65 years of age (2012: 82.3% and 2014: 77.8%)

Demographic Characteristics	Ever Had a Pap Test ^a		Had Appropriately Timed Pap Test ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	88.9	(87.0-90.5)	74.9	(72.8-76.9)
Age				
18 - 29	63.7	(57.9-69.2)	59.1	(53.3-64.7)
30 - 39	96.7	(93.9-98.2)	89.3	(85.1-92.4)
40 - 49	-- ^c	-- ^c	83.1	(78.8-86.7)
50 - 59	-- ^c	-- ^c	86.0	(82.5-88.8)
60 - 69	-- ^c	-- ^c	80.7	(76.9-84.0)
70 +	94.0	(91.1-96.0)	48.3	(43.6-53.1)
Race/Ethnicity				
White non-Hispanic	89.7	(87.5-91.5)	74.4	(72.0-76.6)
Black non-Hispanic	91.0	(85.7-94.4)	80.7	(74.8-85.5)
Other non-Hispanic	72.1	(61.1-80.9)	59.9	(49.1-69.9)
Hispanic	-- ^c	-- ^c	-- ^c	-- ^c
Household Income				
< \$20,000	84.8	(79.5-88.9)	66.5	(60.6-71.9)
\$20,000 - \$34,999	91.6	(87.1-94.7)	72.0	(67.0-76.5)
\$35,000 - \$49,999	94.9	(91.2-97.1)	78.9	(73.7-83.3)
\$50,000 - \$74,999	90.2	(83.4-94.4)	80.5	(74.1-85.6)
≥ \$75,000	93.2	(89.8-95.4)	86.5	(83.1-89.4)
Health Insurance				
Insured	89.9	(87.9-91.5)	77.2	(75.0-79.2)
Uninsured	83.0	(75.3-88.7)	55.8	(47.6-63.8)
Disability				
Not disabled	87.9	(85.7-89.8)	75.7	(73.3-78.0)
Disabled	92.6	(88.4-95.3)	71.5	(67.0-75.6)

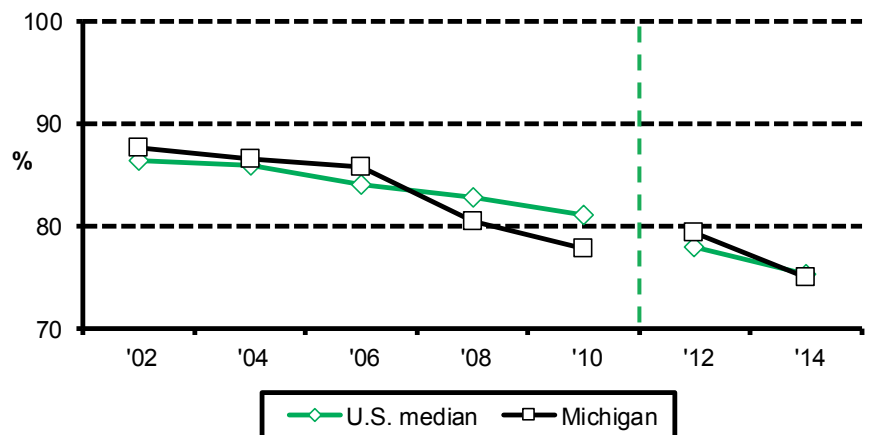
Note: Data includes diagnostic tests and excludes women who have had a hysterectomy.

^a Among women aged 18 years and older, the proportion who reported ever having a Pap test.

^b Among women aged 18 years and older, the proportion who reported having a Pap test within the previous three years.

^c Suppressed due to a denominator of < 50 and/or a relative standard error > 30%.

**Had a Pap Test in the Past Three Years
Among Women Aged 18 Years and Older
U.S. vs. Michigan, 2002-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Prostate Cancer Screening

Prostate cancer is the second leading cause of cancer deaths among males in Michigan; there were 894 deaths in 2012 (19.1 deaths per 100,000 male population, age adjusted).²¹

- ◆ In 2014, an estimated 73.4% of Michigan men aged 50 years and older reported discussing the advantages of a Prostate-Specific Antigen (PSA) test with their doctor, while 45.8% reported having had a PSA test within the past year.
- ◆ The prevalence of having had a PSA test within the past year increased with age and household income level.
- ◆ The prevalence of having a PSA test within the past year was similar by race/ethnicity and disability status.
- ◆ Prior to the 2011 BRFSS methodology changes, the prevalence of receiving a PSA test within the past year among Michigan men 50 years and older was stable over time. The BRFSS methodology changes caused the PSA testing prevalence to take a significant decline in 2012. The 2014 MiBRFS PSA testing prevalence is similar to that of the 2012 prevalence.

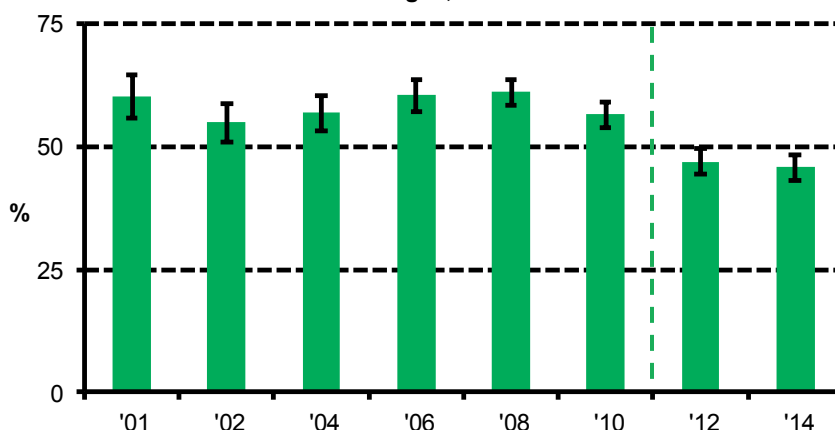
Demographic Characteristics	Ever Discussed Advantages of PSA Test With Doctor ^a		Had PSA Test in Past Year ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	73.4	(71.1-75.7)	45.8	(43.2-48.3)
Age				
50 - 59	67.2	(63.1-71.0)	34.8	(30.8-39.1)
60 - 69	77.2	(73.3-80.6)	51.0	(46.9-55.1)
70 +	79.3	(75.1-83.0)	57.7	(53.1-62.2)
Race/Ethnicity				
White non-Hispanic	74.0	(71.4-76.3)	46.5	(43.8-49.2)
Black non-Hispanic	73.7	(65.2-80.6)	44.9	(36.3-53.9)
Other non-Hispanic	56.3	(42.3-69.4)	33.0	(22.2-46.0)
Hispanic	-- ^c	-- ^c	-- ^c	-- ^c
Household Income				
< \$20,000	59.2	(51.5-66.5)	29.5	(23.2-36.8)
\$20,000 - \$34,999	69.3	(63.6-74.5)	43.8	(38.0-49.7)
\$35,000 - \$49,999	74.9	(68.8-80.1)	51.4	(44.9-57.8)
\$50,000 - \$74,999	77.3	(71.4-82.3)	47.3	(41.1-53.6)
≥ \$75,000	81.7	(77.8-85.0)	53.9	(49.3-58.5)
Health Insurance				
Insured	75.3	(72.9-77.5)	48.2	(45.6-50.7)
Uninsured	48.7	(36.7-60.8)	-- ^c	-- ^c
Disability				
Not disabled	73.8	(70.9-76.5)	46.3	(43.2-49.4)
Disabled	72.7	(68.5-76.5)	44.4	(40.1-48.8)

^a Among men aged 50 years and older, the proportion ever discussing the advantages of a PSA test with a doctor, nurse, or other health professional.

^b Among men aged 50 years and older, the proportion who reported having a PSA test within the past year.

^c Suppressed due to a denominator of < 50 and/or a relative standard error > 30%.

Had a PSA Test in the Past Year
Among Men Aged 50 Years and Older
Michigan, 2001-2014



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Colorectal Cancer Screening

In 2012, colorectal cancer was the second leading cause of cancer-related deaths in Michigan with 1,721 deaths.²¹ Fecal occult blood tests, sigmoidoscopy, and colonoscopy are screening procedures that are performed to detect colorectal cancer in the early stages. Appropriate colorectal cancer screening consists of a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years.

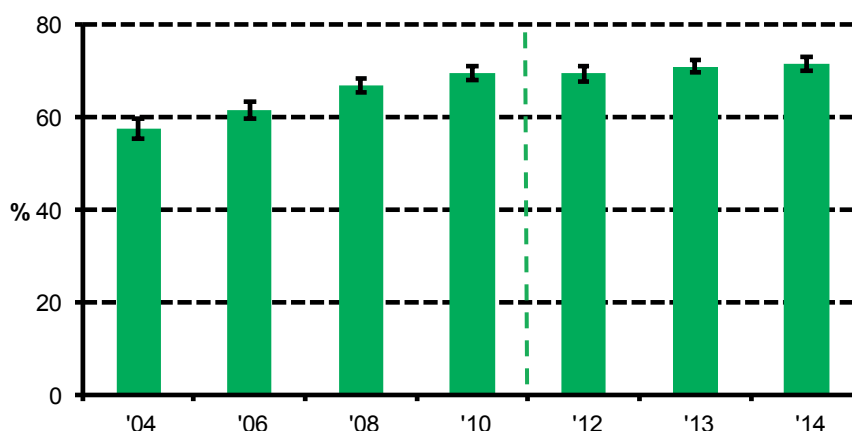
- ◆ In 2014, an estimated 57.5% of Michigan adults aged 50 years and older reported having a sigmoidoscopy or colonoscopy within the past five years, while 71.7% reported appropriate colorectal cancer screening.
- ◆ The prevalence of appropriate colorectal cancer screening was similar by gender and race/ethnicity, but increased with household income level.
- ◆ Insured adults (73.9%) were more likely than uninsured adults (36.1%) to have reported receiving appropriate colorectal cancer screening.
- ◆ The prevalence of appropriate colorectal cancer screening among Michigan adults 50 years and older has continued to increase since the 2011 BRFSS methodology changes.

Demographic Characteristics	Had Sigmoidoscopy or Colonoscopy in Past 5 Years ^a		Had Appropriate Colorectal Cancer Screening ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	57.5	(55.8-59.1)	71.7	(70.2-73.2)
Age				
50 - 59	49.7	(46.9-52.5)	61.6	(58.8-64.4)
60 - 69	63.0	(60.3-65.5)	78.3	(75.9-80.5)
70 +	62.9	(60.2-65.5)	79.5	(77.2-81.7)
Gender				
Male	58.6	(56.1-61.0)	70.4	(68.0-72.8)
Female	56.4	(54.3-58.5)	72.9	(70.9-74.8)
Race/Ethnicity				
White non-Hispanic	57.9	(56.2-59.6)	72.6	(71.0-74.2)
Black non-Hispanic	58.6	(52.9-64.1)	70.9	(65.3-75.9)
Other non-Hispanic	43.8	(34.3-53.8)	58.8	(48.1-68.7)
Hispanic	49.1	(34.1-64.2)	65.2	(49.9-77.9)
Household Income				
< \$20,000	47.2	(42.7-51.9)	59.5	(54.8-64.1)
\$20,000 - \$34,999	54.2	(50.6-57.8)	68.3	(64.8-71.7)
\$35,000 - \$49,999	59.9	(55.7-63.9)	74.8	(70.8-78.4)
\$50,000 - \$74,999	60.1	(55.8-64.2)	74.8	(70.7-78.6)
≥ \$75,000	63.9	(60.7-67.0)	78.0	(75.1-80.7)
Health Insurance				
Insured	59.5	(57.9-61.1)	73.9	(72.4-75.4)
Uninsured	24.7	(18.5-32.1)	36.1	(28.5-44.4)
Disability				
Not disabled	56.2	(54.2-58.1)	71.1	(69.1-72.9)
Disabled	60.2	(57.5-62.9)	73.1	(70.5-75.6)

^a Among adults aged 50 years and older, the proportion reporting having a sigmoidoscopy or colonoscopy within the past five years.

^b Among adults aged 50 years and older, the proportion reporting having a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years.

**Appropriate Colorectal Cancer Screening
Among Adults Aged 50 Years and Older
Michigan, 2004-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Oral Health

2014 MiBRFS

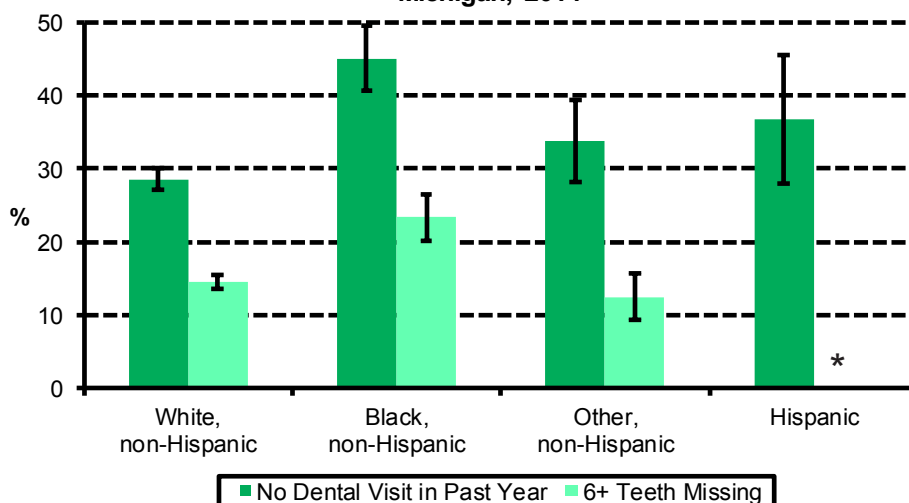
Oral health is an important part of one's general health and quality of life. Regular dental care includes preventive dental services such as teeth cleaning, and permits early diagnosis and treatment of tooth decay and periodontal diseases.²³ It has been estimated that low income adults are 2.5 times more likely to have at least one untreated decayed tooth compared with higher income adults (40% vs. 16%).²⁴

- ◆ In 2014, an estimated 31.4% of Michigan adults reported not having had a dental visit within the past year.
- ◆ With exception of the 25-34 years age group, the prevalence of not having had a dental visit within the past year was similar by age.
- ◆ The prevalence of not having had a dental visit within the past year decreased with increasing household income.
- ◆ Males (35.5%) were more likely to have reported not having a dental visit within the past year compared to females (27.5%).
- ◆ Black, non-Hispanic adults (45.1%) reported a higher prevalence of no dental visit within the past year than White, non-Hispanic adults (28.6%).
- ◆ Uninsured adults and disabled adults (60.1% and 40.4%, respectively) were more likely to have not had a dental visit within the past year compared to insured adults and non-disabled adults (28.2% and 28.2%, respectively).
- ◆ The prevalence of having six or more teeth missing was greater among Black, non-Hispanics (23.4%) than White, non-Hispanics (14.5%).

Demographic Characteristics	No Dental Visit in Past Year ^a	
	%	95% Confidence Interval
Total	31.4	(30.1-32.7)
Age		
18 - 24	28.7	(24.7-33.2)
25 - 34	41.2	(37.1-45.4)
35 - 44	32.7	(28.8-36.8)
45 - 54	32.3	(29.4-35.3)
55 - 64	27.8	(25.4-30.3)
65 - 74	24.7	(22.1-27.4)
75 +	31.5	(28.2-34.9)
Gender		
Male	35.5	(33.5-37.6)
Female	27.5	(25.9-29.3)
Race/Ethnicity		
White non-Hispanic	28.6	(27.2-30.0)
Black non-Hispanic	45.1	(40.7-49.5)
Other non-Hispanic	33.8	(28.1-39.9)
Hispanic	36.8	(28.0-46.6)
Household Income		
< \$20,000	55.3	(51.4-59.0)
\$20,000 - \$34,999	43.1	(40.0-46.4)
\$35,000 - \$49,999	28.6	(25.2-32.2)
\$50,000 - \$74,999	23.0	(20.0-26.3)
≥ \$75,000	13.7	(11.9-15.8)
Health Insurance		
Insured	28.2	(26.9-29.6)
Uninsured	60.1	(55.1-64.9)
Disability		
Not disabled	28.2	(26.7-29.7)
Disabled	40.4	(37.7-43.1)

^a Among all adults, the proportion who reported that they had not visited a dentist or dental clinic for any reason in the previous year.

**Oral Health Risk Factors by Race/Ethnicity
Michigan, 2014**



* Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Immunizations Among Adults 65 Years of Age and Older

Adult immunizations against influenza and pneumococcal disease are important health indicators that need to be routinely monitored since morbidity and mortality are associated with both of these diseases within different demographic groups.²⁵

- ◆ In 2014, an estimated 57.6% of Michigan adults ages 65 years and older reported receiving a flu vaccine within the past year, while an estimated 69.3% of this population reported ever receiving a pneumonia vaccine.
- ◆ Females aged 65 years and above (72.3%) reported a significantly higher prevalence of ever having a pneumonia vaccine than males aged 65 years and above (65.5%).
- ◆ White, non-Hispanic adults were more likely than Black, non-Hispanic adults to have received a flu vaccine within the past year (59.4% vs. 47.5%) and a pneumonia vaccine ever (71.3% vs. 57.1%).
- ◆ Disabled adults (76.8%) were more likely to have ever received a pneumonia vaccine than non-disabled adults (64.6%).
- ◆ The prevalence of ever having had a pneumonia vaccine among Michigan adults 65 years and older has remained relatively stable over the past four years.

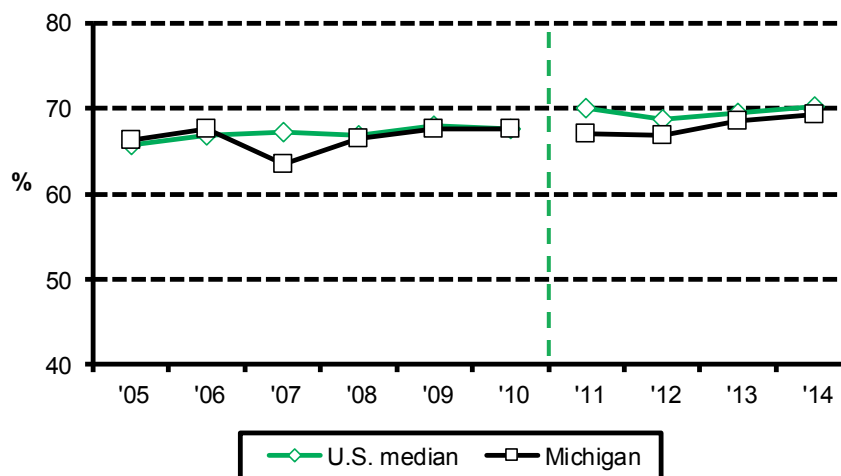
Demographic Characteristics	Had Flu Vaccine in Past Year ^a		Ever Had Pneumonia Vaccine ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	57.6	(55.4-59.8)	69.3	(67.1-71.4)
Age				
65 - 74	55.9	(53.0-58.7)	66.5	(63.7-69.2)
75 +	60.0	(56.5-63.3)	73.1	(69.7-76.2)
Gender				
Male	56.9	(53.4-60.4)	65.5	(61.9-68.9)
Female	58.2	(55.4-60.9)	72.3	(69.6-74.7)
Race/Ethnicity				
White non-Hispanic	59.4	(57.1-61.7)	71.3	(69.1-73.4)
Black non-Hispanic	47.5	(39.5-55.6)	57.1	(48.7-65.2)
Other non-Hispanic	32.0	(19.0-48.6)	60.3	(42.7-75.5)
Hispanic	-- ^c	-- ^c	-- ^c	-- ^c
Household Income				
< \$20,000	52.9	(46.7-59.0)	64.5	(58.0-70.5)
\$20,000 - \$34,999	53.3	(48.9-57.6)	67.8	(63.3-71.9)
\$35,000 - \$49,999	56.1	(50.6-61.4)	68.7	(63.3-73.7)
\$50,000 - \$74,999	62.1	(55.8-68.0)	69.1	(63.0-74.6)
≥ \$75,000	67.2	(61.9-72.2)	74.5	(69.2-79.2)
Disability				
Not disabled	55.4	(52.6-58.2)	64.6	(61.7-67.3)
Disabled	60.8	(57.2-64.2)	76.8	(73.6-79.8)

^a Among adults aged 65 years and older, the proportion reporting that they had a flu vaccine, either by injection in the arm or sprayed in the nose during the past 12 months.

^b Among adults aged 65 years and older, the proportion reporting that they ever had a pneumococcal vaccine.

^c Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Ever Had a Pneumococcal Vaccination
Among Adults Aged 65 Years and Older
U.S. vs. Michigan, 2005-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



HIV Testing

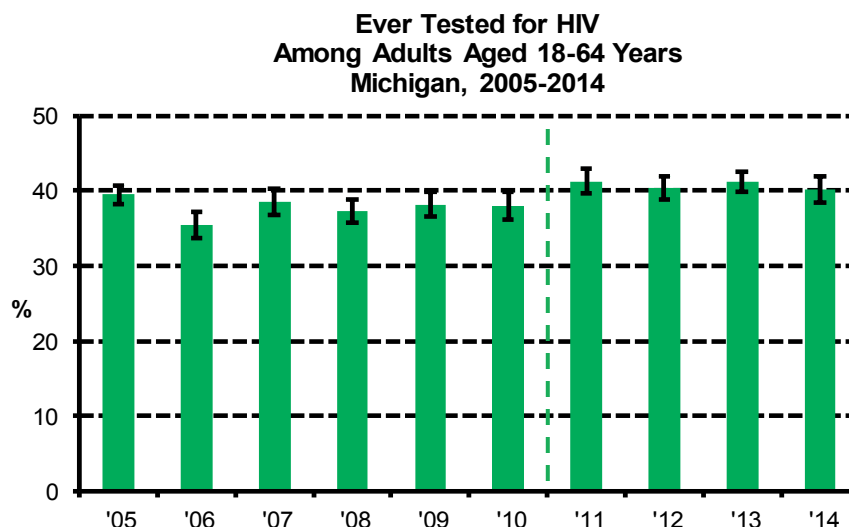
2014 MiBRFS

Early awareness of an HIV infection through HIV testing can prevent further spread of the disease, and an early start on antiretroviral therapy can increase the quality of life among those who are living with HIV/AIDS.²⁶

- ◆ In 2014, an estimated 40.2% of Michigan adults reported ever being tested for HIV.
- ◆ Females (44.8%) reported a significantly higher prevalence of HIV testing than males (35.6%).
- ◆ Black, non-Hispanic adults (70.5%) reported a significantly higher prevalence of HIV testing than both White, non-Hispanic (34.0%) and Hispanic adults (53.7%).
- ◆ The prevalence of HIV testing decreased with increasing household income level.
- ◆ Disabled adults (46.5%) were more likely to have been tested for HIV than non-disabled adults (38.5%).
- ◆ Since the BRFSS methodology changes that were implemented in 2011, the prevalence of HIV testing among Michigan adult has remained stable over time.

Demographic Characteristics	Ever Had an HIV Test ^a	
	%	95% Confidence Interval
Total	40.2	(38.5-41.8)
Age		
18 - 24	23.6	(19.8-27.8)
25 - 34	55.0	(50.6-59.2)
35 - 44	55.0	(50.9-59.0)
45 - 54	39.7	(36.7-42.8)
55 - 64	27.4	(25.0-29.9)
Gender		
Male	35.6	(33.2-38.0)
Female	44.8	(42.5-47.1)
Race/Ethnicity		
White non-Hispanic	34.0	(32.3-35.8)
Black non-Hispanic	70.5	(65.9-74.7)
Other non-Hispanic	38.7	(32.2-45.6)
Hispanic	53.7	(43.1-63.9)
Household Income		
< \$20,000	54.8	(50.2-59.3)
\$20,000 - \$34,999	43.9	(39.7-48.2)
\$35,000 - \$49,999	39.2	(34.6-43.9)
\$50,000 - \$74,999	34.0	(30.0-38.1)
≥ \$75,000	36.0	(33.3-38.8)
Health Insurance		
Insured	40.5	(38.7-42.2)
Uninsured	39.3	(34.2-44.5)
Disability		
Not disabled	38.5	(36.6-40.4)
Disabled	46.5	(42.9-50.0)

^a Among adults aged 18-64 years, the proportion reporting that they ever had been tested for HIV, apart from tests that were part of a blood donation.



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Asthma in Adults

Asthma is a chronic inflammatory disorder of the lungs, characterized by wheezing, coughing, difficulty breathing, and chest tightness. Allergies, a family history of asthma or allergy, low birth weight, and exposure to tobacco smoke are just a few of the potential risk factors that are associated with the development of asthma.²⁷

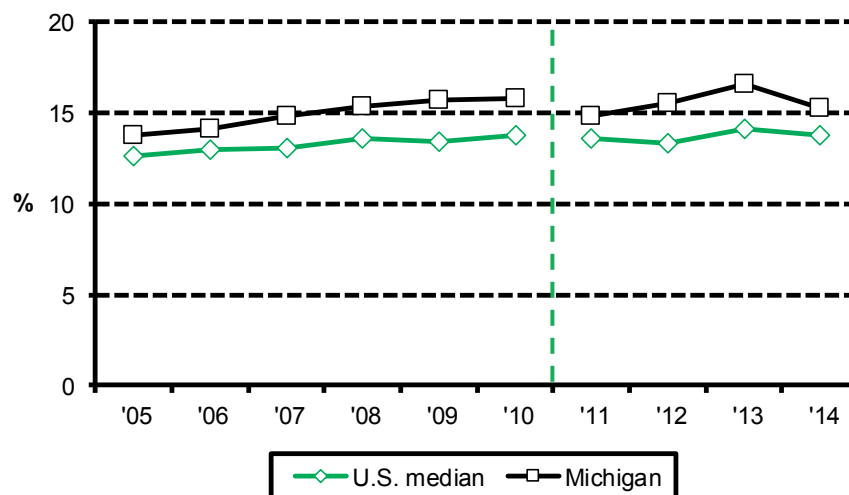
- ◆ In 2014, an estimated 15.3% of Michigan adults reported that they were ever diagnosed with asthma and 10.9% reported that they currently have asthma.
- ◆ The prevalence of both lifetime and current asthma decreased with age and increasing household income level.
- ◆ Females reported a significantly higher prevalence than males for both lifetime (17.6% vs. 13.0%) and current asthma (13.5% and 8.1%).
- ◆ Black, non-Hispanic adults (14.2%) reported a significantly higher prevalence of current asthma than White, non-Hispanic adults (10.1%).
- ◆ Disabled adults reported a significantly higher prevalence than non-disabled adults for both lifetime (23.4% vs. 12.5%) and current asthma (17.7% vs. 8.5%).
- ◆ In 2014, the prevalence of ever being diagnosed with asthma among Michigan adults (15.3%) was higher than the U.S. median prevalence (13.8%).

Demographic Characteristics	Lifetime Asthma ^a		Current Asthma ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	15.3	(14.4-16.4)	10.9	(10.1-11.8)
Age				
18 - 24	16.7	(13.5-20.5)	10.3	(7.9-13.4)
25 - 34	18.8	(15.8-22.3)	13.3	(10.7-16.5)
35 - 44	13.5	(11.1-16.4)	9.7	(7.6-12.2)
45 - 54	16.2	(13.9-18.7)	11.3	(9.4-13.5)
55 - 64	16.0	(14.1-18.2)	12.7	(10.9-14.7)
65 - 74	13.3	(11.4-15.4)	9.1	(7.6-10.9)
75 +	9.5	(7.9-11.4)	7.1	(5.7-8.8)
Gender				
Male	13.0	(11.7-14.5)	8.1	(7.1-9.3)
Female	17.6	(16.2-19.0)	13.5	(12.2-14.8)
Race/Ethnicity				
White non-Hispanic	14.5	(13.4-15.6)	10.1	(9.2-11.0)
Black non-Hispanic	18.1	(15.0-21.6)	14.2	(11.5-17.5)
Other non-Hispanic	19.6	(15.1-25.1)	12.2	(9.0-16.5)
Hispanic	18.0	(11.8-26.3)	13.4	(8.0-21.6)
Household Income				
< \$20,000	24.2	(21.1-27.6)	18.8	(16.1-21.8)
\$20,000 - \$34,999	15.1	(12.9-17.5)	11.0	(9.1-13.2)
\$35,000 - \$49,999	13.9	(11.4-16.8)	9.3	(7.1-11.9)
\$50,000 - \$74,999	11.2	(9.1-13.6)	7.8	(6.0-9.9)
≥ \$75,000	13.3	(11.6-15.3)	8.9	(7.5-10.6)
Health Insurance				
Insured	15.4	(14.3-16.4)	10.9	(10.1-11.9)
Uninsured	15.3	(12.0-19.4)	10.5	(7.7-14.3)
Disability				
Not disabled	12.5	(11.4-13.6)	8.5	(7.6-9.5)
Disabled	23.4	(21.2-25.7)	17.7	(15.8-19.8)

^a Among all adults, the proportion reporting that they were ever told by a doctor, nurse, or other health care professional that they had asthma

^b Among all adults, the proportion reporting that they still have asthma.

**Lifetime Adult Asthma
U.S. vs. Michigan, 2005-2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Asthma in Children

Although asthma can affect people of all ages, in most cases it begins during childhood. More than 22 million people in the United States are known to have asthma, and about six million of these people are children. Children with a family history of asthma and allergy are at a higher risk of developing asthma during childhood.²⁸

- ◆ Based on proxy information provided by the adult respondent, the estimated proportion of Michigan children aged 0-17 years who were ever told by a doctor that they had asthma for 2014 was 14.2%, and an estimated 10.2% currently have asthma.
- ◆ The prevalences of both lifetime and current asthma increased with age until 10-14 years of age and then dropped slightly within the 15-17 year-old age group.
- ◆ The prevalence of both lifetime and current asthma among children decreased with increasing household income level.
- ◆ White, non-Hispanic children (12.5% and 8.9%, respectively) were less likely to report both lifetime and current asthma than Black, non-Hispanic children (22.7% and 19.3%, respectively).
- ◆ Black, non-Hispanic children were more likely to report lifetime asthma than White, non-Hispanic children, but the prevalence was similar by gender within each racial/ethnic group.

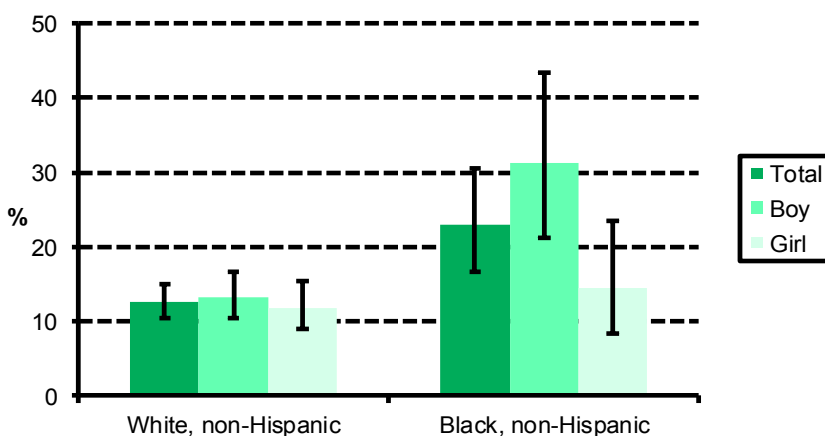
Demographic Characteristics	Lifetime Asthma ^a		Current Asthma ^b	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	14.2	(12.3-16.3)	10.2	(8.6-12.2)
Age				
0 - 4	8.8	(5.5-13.7)	7.2	(4.4-11.7)
5 - 9	11.8	(8.3-16.4)	9.0	(5.9-13.5)
10 - 14	20.2	(16.1-25.1)	15.2	(11.5-19.8)
15 - 17	17.9	(14.3-22.2)	10.6	(7.8-14.2)
Gender				
Boy	16.3	(13.6-19.6)	11.8	(9.3-14.8)
Girl	12.3	(9.8-15.2)	8.8	(6.7-11.5)
Race/Ethnicity				
White non-Hispanic	12.5	(10.5-14.9)	8.9	(7.1-11.1)
Black non-Hispanic	22.7	(16.5-30.3)	19.3	(13.4-26.9)
Other non-Hispanic	13.4	(8.3-21.0)	8.2	(4.5-14.5)
Hispanic	12.8	(7.6-20.8)	-- ^c	-- ^c
Household Income				
< \$20,000	20.5	(14.0-29.2)	16.8	(10.6-25.5)
\$20,000 - \$34,999	14.0	(9.5-20.0)	12.3	(8.1-18.4)
\$35,000 - \$49,999	16.8	(11.4-24.1)	14.3	(9.2-21.6)
\$50,000 - \$74,999	12.1	(8.3-17.2)	7.9	(4.9-12.7)
≥ \$75,000	11.6	(9.1-14.6)	6.7	(4.9-9.1)

^a Estimated proportion of Michigan children aged 0-17 years ever told by a doctor, nurse, or other health care professional that they had asthma, using proxy information from the adult respondent.

^b Estimated proportion of Michigan children aged 0-17 years who still have asthma, using proxy information from the adult respondent.

^c Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Lifetime Child Asthma by Race and Gender
Michigan, 2014**





2014 MiBRFS

Chronic Obstructive Pulmonary Disease (COPD)

Chronic obstructive pulmonary disease (COPD) is a progressive disease that usually results in coughing, wheezing, shortness of breath, chest tightness, and other symptoms. Cigarette smoking is the leading cause of COPD.²⁹

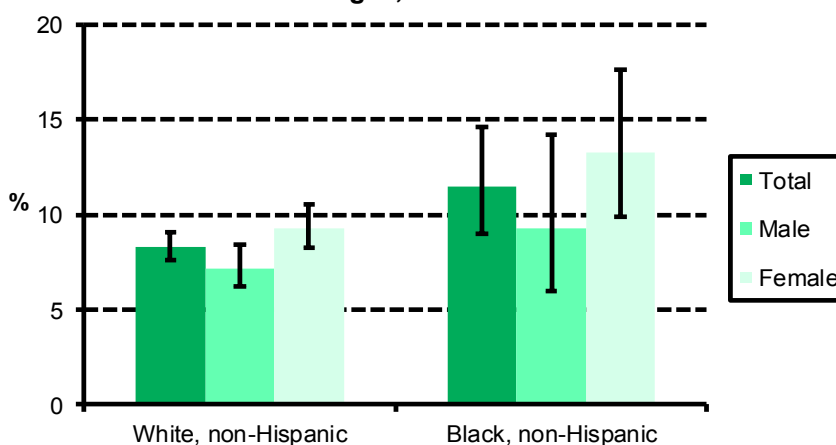
- ◆ In 2014, an estimated 8.8% of Michigan adults reported ever being told by a doctor that they had COPD.
- ◆ The prevalence of COPD increased with age and decreased with increasing household income level.
- ◆ Females (10.0%) reported a significantly higher prevalence of COPD than males (7.6%).
- ◆ Black, non-Hispanic adults (11.5%) reported a significantly higher prevalence of COPD than White, non-Hispanic adults (8.3%) [$p = 0.031$].
- ◆ Disabled adults (20.5%) were more likely to have been diagnosed with COPD than non-disabled adults (4.9%).
- ◆ Current smokers (16.1% [13.8-18.6]) reported a significantly higher lifetime prevalence of COPD than their non-smoking counterparts (6.8% [6.1-7.5]).
- ◆ The prevalence of COPD was similar by gender for both White, non-Hispanic and Black, non-Hispanic adults.
- ◆ In 2014, the prevalence of COPD among Michigan adults (8.8%) was higher than the U.S. median prevalence (6.5%).

Demographic Characteristics	Ever Told COPD, Emphysema, or Chronic Bronchitis ^a	
	%	95% Confidence Interval
Total	8.8	(8.1-9.6)
Age		
18 - 24	-- ^b	-- ^b
25 - 34	5.5	(3.7-8.1)
35 - 44	5.2	(3.6-7.5)
45 - 54	8.7	(7.0-10.7)
55 - 64	14.0	(12.1-16.0)
65 - 74	13.4	(11.4-15.6)
75 +	15.0	(12.7-17.6)
Gender		
Male	7.6	(6.6-8.7)
Female	10.0	(9.0-11.2)
Race/Ethnicity		
White non-Hispanic	8.3	(7.6-9.1)
Black non-Hispanic	11.5	(9.0-14.6)
Other non-Hispanic	9.2	(6.5-13.0)
Hispanic	-- ^b	-- ^b
Household Income		
< \$20,000	19.1	(16.4-22.1)
\$20,000 - \$34,999	11.6	(9.8-13.8)
\$35,000 - \$49,999	8.9	(6.8-11.5)
\$50,000 - \$74,999	3.6	(2.7-4.7)
≥ \$75,000	3.8	(2.9-4.8)
Health Insurance		
Insured	9.2	(8.4-10.1)
Uninsured	5.8	(3.9-8.7)
Disability		
Not disabled	4.9	(4.3-5.7)
Disabled	20.5	(18.5-22.6)

^a Among all adults, the proportion reporting ever being told by a doctor that they had chronic obstructive pulmonary disease (COPD), emphysema or chronic bronchitis.

^b Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**COPD by Race and Gender
Michigan, 2014**





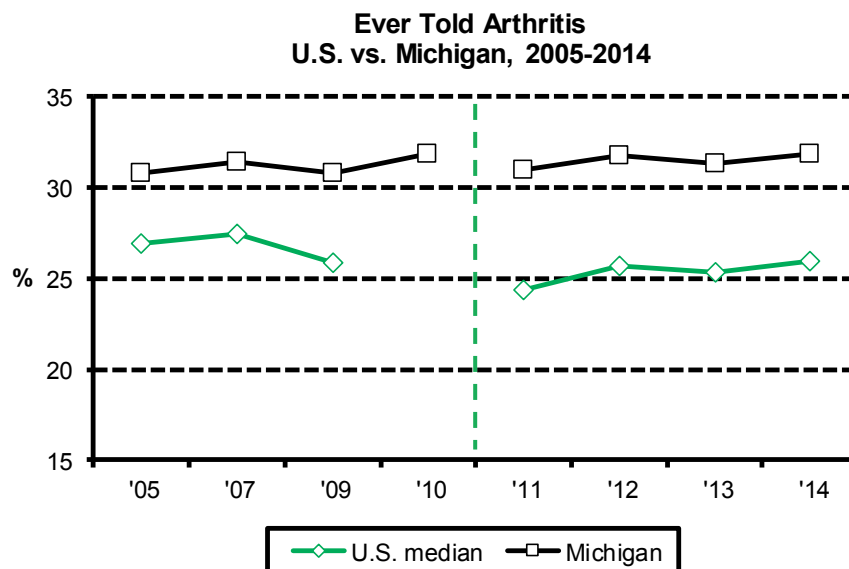
Arthritis

Arthritis and rheumatism are the leading causes of disability within the United States. These conditions have been diagnosed in an estimated 52.5 million U.S. adults.³⁰

- ◆ In 2014, an estimated 31.9% of Michigan adults reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.
- ◆ Females (35.5%) reported a significantly higher prevalence of arthritis than males (28.1%).
- ◆ The prevalence of arthritis was similar by race/ethnicity.
- ◆ The prevalence of arthritis increased with age and decreased with increasing household income level.
- ◆ Uninsured adults (19.0%) were less likely to have been diagnosed with arthritis than insured adults (33.5%), while disabled adults (63.1%) were more likely to have been diagnosed than non-disabled adults (21.5%).
- ◆ In 2014, the prevalence of arthritis among Michigan adults (31.9%) was significantly higher than the U.S. median prevalence (26.0%).

Demographic Characteristics	Ever Told Arthritis ^a	
	%	95% Confidence Interval
Total	31.9	(30.7-33.1)
Age		
18 - 24	4.8	(3.1-7.5)
25 - 34	11.1	(8.6-14.3)
35 - 44	19.3	(16.3-22.8)
45 - 54	32.2	(29.4-35.2)
55 - 64	48.2	(45.6-50.9)
65 - 74	59.1	(56.3-61.8)
75 +	61.6	(58.2-64.9)
Gender		
Male	28.1	(26.4-29.9)
Female	35.5	(33.9-37.2)
Race/Ethnicity		
White non-Hispanic	32.9	(31.6-34.2)
Black non-Hispanic	29.9	(26.4-33.7)
Other non-Hispanic	22.6	(18.1-27.8)
Hispanic	28.4	(20.3-38.0)
Household Income		
< \$20,000	40.1	(36.5-43.7)
\$20,000 - \$34,999	38.2	(35.3-41.2)
\$35,000 - \$49,999	33.0	(29.8-36.3)
\$50,000 - \$74,999	27.3	(24.4-30.4)
≥ \$75,000	22.2	(20.2-24.2)
Health Insurance		
Insured	33.5	(32.3-34.8)
Uninsured	19.0	(15.5-23.2)
Disability		
Not disabled	21.5	(20.3-22.7)
Disabled	63.1	(60.5-65.7)

^a Among all adults, the proportion reporting ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Cardiovascular Disease

2014 MiBRFS

Heart disease and stroke are the first and fourth leading causes of death, respectively, in both Michigan and the United States.³¹

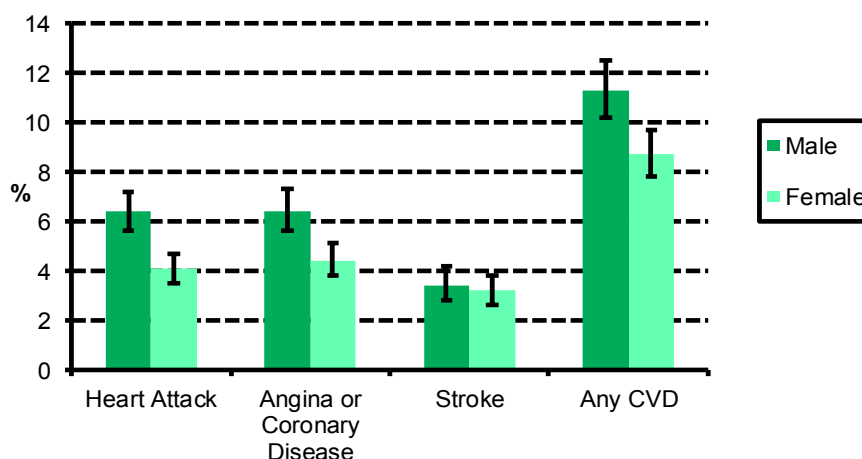
- ◆ In 2014, an estimated 5.2% of Michigan adults had ever been told by a doctor that they had a heart attack, 5.4% had ever been told they had angina or coronary heart disease, and 3.3% had ever been told they had a stroke.
- ◆ When combining all three measures into one indicator, an estimated 10.0% of Michigan adults have ever been told by a doctor that they had some form of cardiovascular disease.
- ◆ The prevalence of all three diseases increased with age and decreased with increasing household income level.
- ◆ Males reported higher prevalences than females for heart attack and coronary heart disease, but not stroke.
- ◆ The prevalences of all three diseases were similar by race/ethnicity.
- ◆ Disabled adults were more likely to have been diagnosed with each of the three diseases when compared to non-disabled adults.
- ◆ In 2014, the prevalence of heart attack (5.2%), coronary heart disease (5.4%), and stroke (3.3%) among Michigan adults were all comparable to the U.S. median prevalence (heart attack: 4.4%; coronary heart disease: 4.2%; and stroke: 3.0%).

Demographic Characteristics	Ever Told Heart Attack ^a		Ever Told Angina or Coronary Heart Disease ^b		Ever Told Stroke ^c	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Total	5.2	(4.7-5.7)	5.4	(4.9-5.9)	3.3	(2.9-3.8)
Age						
18 - 34	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
35 - 44	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
45 - 54	3.9	(2.8-5.5)	4.1	(2.9-5.8)	2.5	(1.6-3.9)
55 - 64	7.5	(6.1-9.1)	8.5	(7.0-10.2)	4.5	(3.5-5.8)
65 - 74	11.8	(10.1-13.8)	13.3	(11.5-15.3)	7.0	(5.5-8.9)
75 +	17.2	(14.7-20.0)	16.8	(14.3-19.7)	9.1	(7.2-11.3)
Gender						
Male	6.4	(5.6-7.2)	6.4	(5.6-7.3)	3.4	(2.8-4.2)
Female	4.1	(3.5-4.7)	4.4	(3.8-5.1)	3.2	(2.6-3.8)
Race/Ethnicity						
White non-Hispanic	5.4	(4.9-6.0)	5.7	(5.2-6.4)	3.0	(2.6-3.5)
Black non-Hispanic	5.1	(3.6-7.1)	4.3	(2.9-6.3)	4.2	(2.9-6.0)
Other non-Hispanic	4.7	(2.9-7.6)	4.7	(2.7-8.1)	4.0	(2.4-6.7)
Hispanic	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Household Income						
< \$20,000	8.7	(7.0-10.8)	7.1	(5.5-9.0)	5.0	(3.8-6.5)
\$20,000 - \$34,999	7.3	(6.0-8.9)	8.0	(6.6-9.7)	4.8	(3.7-6.3)
\$35,000 - \$49,999	5.5	(4.2-7.1)	6.0	(4.7-7.7)	2.3	(1.4-3.5)
\$50,000 - \$74,999	3.5	(2.6-4.6)	4.1	(3.2-5.4)	1.8	(1.1-2.9)
≥ \$75,000	2.1	(1.6-3.0)	2.8	(2.2-3.5)	1.5	(1.0-2.3)
Health Insurance						
Insured	5.4	(4.9-6.0)	5.8	(5.3-6.5)	3.4	(2.9-3.9)
Uninsured	3.1	(1.9-5.1)	-- ^d	-- ^d	2.5	(1.3-4.5)
Disability						
Not disabled	3.1	(2.7-3.6)	3.1	(2.7-3.6)	1.4	(1.1-1.8)
Disabled	11.4	(10.0-13.1)	12.2	(10.7-13.9)	8.4	(7.1-9.9)

Among all adults, the proportion ever told by a doctor that: ^a they had a heart attack or myocardial infarction, ^b they had angina or coronary heart disease, or ^c they had a stroke.

^d Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Cardiovascular Disease by Gender
Michigan, 2014**





Cancer

2014 MiBRFS

Cancer is the second leading cause of death in both Michigan and the United States.³¹ There are more than 100 different types of cancer and it is estimated that there will be nearly 1.7 million new cases of cancer within the following year.³²

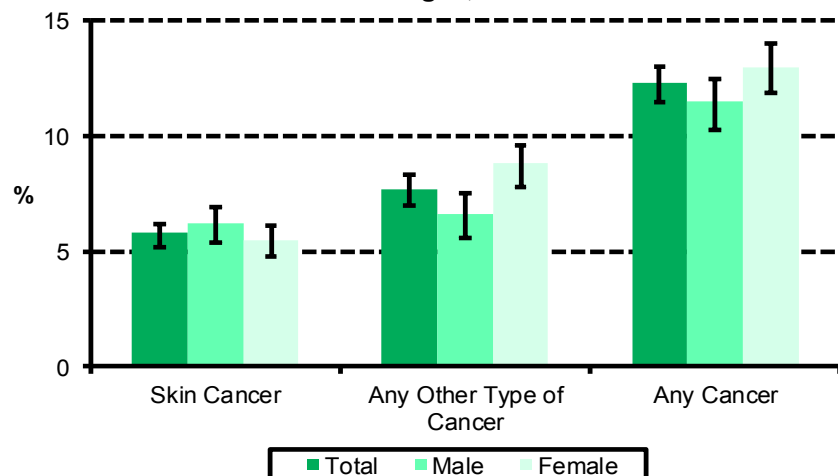
- ◆ In 2014, an estimated 5.8% of Michigan adults had ever been told by a doctor that they had skin cancer, and 7.7% reported ever being diagnosed with a type of cancer other than skin cancer.
- ◆ When combining these two measures into one indicator, an estimated 12.3% of Michigan adults had ever been told by a doctor that they had some form of cancer.
- ◆ The prevalence of cancer increased with age, but was similar by gender.
- ◆ White, non-Hispanic adults (13.9%) reported a significantly higher prevalence of cancer than Black, non-Hispanic (6.4%).
- ◆ Insured adults and disabled adults reported higher cancer prevalences than uninsured and non-disabled adults, respectively.
- ◆ In 2014, the prevalence for skin cancer (5.8%) and other types of cancer (7.7%) were comparable to the U.S. median prevalence (skin cancer, 6.1% and other cancers, 6.8%).

Demographic Characteristics	Ever Told Skin Cancer ^a		Ever Told Any Other Types of Cancer ^b		Ever Told Cancer ^c	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Total	5.8	(5.4-6.4)	7.7	(7.1-8.4)	12.3	(11.6-13.1)
Age						
18 - 34	-- ^d	-- ^d	1.9	(1.2-3.0)	2.2	(1.4-3.3)
35 - 44	-- ^d	-- ^d	3.8	(2.4-5.9)	4.8	(3.2-7.0)
45 - 54	4.1	(3.1-5.4)	5.2	(4.0-6.7)	9.1	(7.5-10.9)
55 - 64	8.2	(6.9-9.7)	8.8	(7.4-10.4)	15.6	(13.8-17.6)
65 - 74	14.1	(12.3-16.2)	17.5	(15.5-19.8)	28.5	(26.1-31.1)
75 +	20.6	(18.1-23.4)	24.4	(21.5-27.5)	38.0	(34.7-41.4)
Gender						
Male	6.2	(5.5-7.0)	6.6	(5.7-7.6)	11.5	(10.5-12.7)
Female	5.5	(4.9-6.2)	8.8	(8.0-9.8)	13.0	(12.0-14.1)
Race/Ethnicity						
White non-Hispanic	7.3	(6.7-8.0)	8.2	(7.5-8.9)	13.9	(13.1-14.8)
Black non-Hispanic	-- ^d	-- ^d	6.3	(4.5-8.8)	6.4	(4.6-9.0)
Other non-Hispanic	-- ^d	-- ^d	5.5	(3.5-8.4)	7.4	(5.1-10.7)
Hispanic	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Household Income						
< \$20,000	4.4	(3.3-5.8)	9.7	(7.7-12.2)	12.9	(10.7-15.5)
\$20,000 - \$34,999	5.5	(4.5-6.6)	9.5	(7.9-11.2)	13.9	(12.1-15.9)
\$35,000 - \$49,999	5.9	(4.8-7.4)	8.0	(6.5-9.8)	12.3	(10.5-14.5)
\$50,000 - \$74,999	6.3	(5.0-7.8)	6.8	(5.4-8.5)	11.9	(10.1-14.0)
≥ \$75,000	6.0	(5.1-7.2)	4.5	(3.7-5.4)	9.7	(8.5-11.1)
Health Insurance						
Insured	6.3	(5.8-6.9)	8.2	(7.5-8.9)	13.2	(12.4-14.0)
Uninsured	-- ^d	-- ^d	3.7	(2.3-5.8)	5.0	(3.4-7.4)
Disability						
Not disabled	4.9	(4.4-5.4)	5.7	(5.1-6.3)	9.7	(9.0-10.5)
Disabled	8.8	(7.6-10.1)	13.8	(12.1-15.6)	20.0	(18.1-22.1)

Among all adults, the proportion ever told by a doctor that: ^a they had skin cancer, ^b they had a form of cancer other than skin cancer, or ^c they had skin cancer or any other type of cancer.

^d Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Ever Told Cancer by Gender
Michigan, 2014**





Prediabetes

2014 MiBRFS

Prediabetes is an underreported condition that increases a person's risk of type 2 diabetes, heart disease and stroke.³³

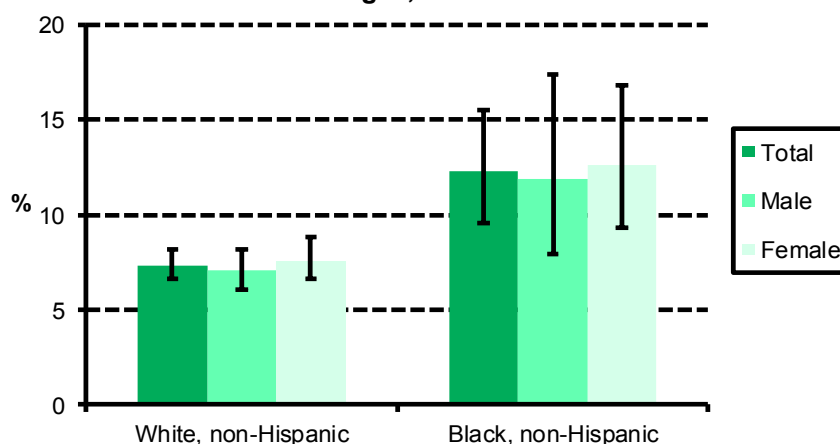
- ◆ In 2014, an estimated 8.2% of Michigan adults reported ever being told by a doctor that they had prediabetes.
- ◆ The prevalence of prediabetes increased with age, but was similar by gender and insurance status.
- ◆ Black, non-Hispanic adults (12.3%) reported a significantly higher prevalence of prediabetes than White, non-Hispanic adults (7.3%).
- ◆ Adults within the highest household income category reported the lowest prevalence of prediabetes (6.9%).
- ◆ Disabled adults (13.7%) were more likely to report having ever been told they had prediabetes compared to non-disabled adults (6.6%).
- ◆ White, non-Hispanic males (7.1%) reported a significantly lower prevalence of prediabetes than Black, non-Hispanic males (11.9%) [$p = 0.049$], and White, non-Hispanic females (7.6%) reported a significantly lower prevalence of prediabetes than Black, non-Hispanic females (12.6%) [$p = 0.014$].

Demographic Characteristics	Ever Told Prediabetes ^a	
	%	95% Confidence Interval
Total	8.2	(7.4-9.0)
Age		
18 - 24	-- ^b	-- ^b
25 - 34	3.8	(2.4-6.2)
35 - 44	5.3	(3.7-7.5)
45 - 54	10.1	(8.3-12.4)
55 - 64	12.8	(11.0-14.7)
65 - 74	13.6	(11.3-16.3)
75 +	11.3	(9.2-13.9)
Gender		
Male	7.6	(6.6-8.7)
Female	8.8	(7.7-10.0)
Race/Ethnicity		
White non-Hispanic	7.3	(6.6-8.2)
Black non-Hispanic	12.3	(9.6-15.5)
Other non-Hispanic	9.7	(6.4-14.5)
Hispanic		
Household Income		
< \$20,000	9.6	(7.5-12.1)
\$20,000 - \$34,999	10.1	(8.2-12.5)
\$35,000 - \$49,999	8.9	(7.0-11.2)
\$50,000 - \$74,999	8.1	(6.3-10.4)
≥ \$75,000	6.9	(5.7-8.3)
Health Insurance		
Insured	8.4	(7.7-9.3)
Uninsured	6.3	(4.1-9.8)
Disability		
Not disabled	6.6	(5.9-7.5)
Disabled	13.7	(11.8-15.8)

^a Among all adults, the proportion who reported that they were ever told by a doctor that they had prediabetes. Women who had prediabetes only during pregnancy were classified as not having been diagnosed.

^b Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Prediabetes by Race and Gender
Michigan, 2014





Diabetes

2014 MiBRFS

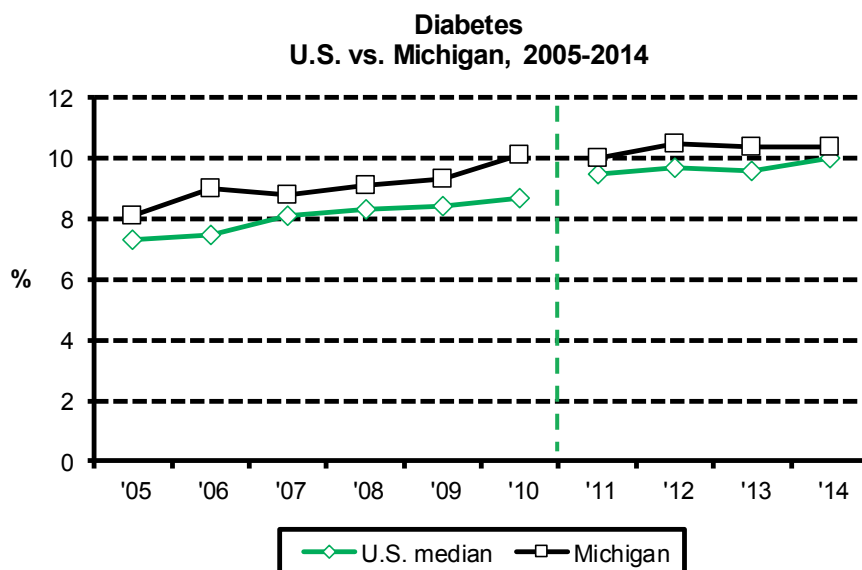
In 2013, diabetes was the seventh leading cause of death in both Michigan and the United States.³¹ Obesity, poor diet, physical inactivity, and high blood pressure are just a few of the known risk factors that are associated with the development of diabetes.³⁴

- ◆ In 2014, an estimated 10.4% of Michigan adults reported ever being told by a doctor that they had diabetes.
- ◆ The prevalence of diabetes increased with age and decreased with increasing household income level.
- ◆ The prevalence of diabetes was similar by gender, but Black, non-Hispanic adults (13.8%) reported a significantly higher prevalence of diabetes than White, non-Hispanic adults (9.9%).
- ◆ Uninsured adults (3.5%) were less likely to have been diagnosed with diabetes than insured adults (11.2%), while disabled adults (20.2%) were more likely to be have been diagnosed than non-disabled adults (7.1%).
- ◆ Obese (18.9% [17.2-20.7]) and overweight (9.2% [8.1-10.4]) adults reported significantly higher lifetime prevalences of diabetes than healthy weight adults (3.7% [3.0-4.6]).
- ◆ Prior to the BRFSS methodology changes that were implemented in 2011, the prevalence of diabetes among Michigan adults was increasing slightly over time. This trend seems to have stabilized a bit since 2011.
- ◆ In 2014, the prevalence of diabetes among Michigan adults (10.4%) was comparable to the U.S. median prevalence (10.0%).

Demographic Characteristics	Ever Told Diabetes ^a	
	%	95% Confidence Interval
Total	10.4	(9.7-11.1)
Age		
18 - 24	-- ^b	-- ^b
25 - 34	1.8	(1.0-3.1)
35 - 44	3.3	(2.1-5.0)
45 - 54	9.5	(7.8-11.5)
55 - 64	16.4	(14.5-18.6)
65 - 74	25.1	(22.7-27.7)
75 +	21.8	(19.0-24.8)
Gender		
Male	11.1	(10.1-12.3)
Female	9.6	(8.7-10.6)
Race/Ethnicity		
White non-Hispanic	9.9	(9.1-10.7)
Black non-Hispanic	13.8	(11.6-16.5)
Other non-Hispanic	10.1	(7.1-14.2)
Hispanic	8.9	(5.1-15.1)
Household Income		
< \$20,000	13.1	(11.1-15.3)
\$20,000 - \$34,999	14.1	(12.3-16.1)
\$35,000 - \$49,999	11.7	(9.8-14.0)
\$50,000 - \$74,999	8.2	(6.6-10.1)
≥ \$75,000	5.7	(4.7-6.9)
Health Insurance		
Insured	11.2	(10.4-12.0)
Uninsured	3.5	(2.2-5.5)
Disability		
Not disabled	7.1	(6.4-7.8)
Disabled	20.2	(18.3-22.2)

^a Among all adults, the proportion reporting that they were ever told by a doctor that they had diabetes. Adults told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed.

^b Suppressed due to a denominator < 50 and/or a relative standard error > 30%.



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



Kidney Disease

2014 MiBRFS

Kidney disease is a condition in which the kidneys are damaged and cannot filter blood properly. Adults with diabetes or hypertension are at increased risk of kidney disease. Kidney disease is also a risk factor for the development of cardiovascular disease.³⁵

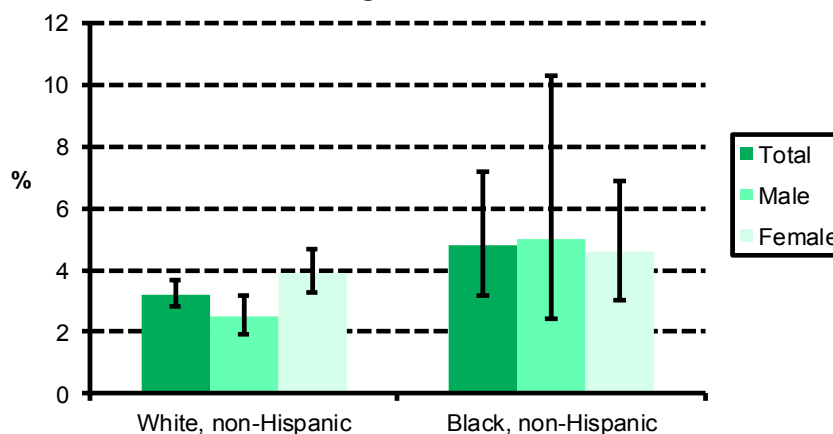
- ◆ In 2014, an estimated 3.3% of Michigan adults reported ever being told by a doctor that they had kidney disease.
- ◆ The prevalence of kidney disease increased with age and decreased with increasing household income level.
- ◆ The prevalence of kidney disease was similar by gender and race/ethnicity.
- ◆ Disabled adults (8.8%) were more likely to have been diagnosed with kidney disease than their non-disabled counterparts (1.5%).
- ◆ Michigan adults with diabetes (10.2% [95% CI: 8.2-12.6]) were over four times as likely to have being diagnosed with kidney disease than adults without diabetes (2.5% [95% CI: 2.1-3.0]).
- ◆ White, non-Hispanic females (3.9%) reported a higher prevalence of kidney disease than White, non-Hispanic males (2.5%).
- ◆ In 2014, the prevalence of kidney disease among Michigan adults (3.3%) was similar to the U.S. median prevalence (2.7%).

Demographic Characteristics	Ever Told Kidney Disease ^a	
	%	95% Confidence Interval
Total	3.3	(2.9-3.8)
Age		
18 - 24	-- ^b	-- ^b
25 - 34	-- ^b	-- ^b
35 - 44	-- ^b	-- ^b
45 - 54	3.4	(2.4-4.9)
55 - 64	4.3	(3.4-5.5)
65 - 74	6.6	(5.2-8.4)
75 +	6.9	(5.4-8.8)
Gender		
Male	2.8	(2.1-3.6)
Female	3.8	(3.3-4.4)
Race/Ethnicity		
White non-Hispanic	3.2	(2.8-3.7)
Black non-Hispanic	4.8	(3.2-7.2)
Other non-Hispanic	-- ^b	-- ^b
Hispanic	-- ^b	-- ^b
Household Income		
< \$20,000	5.7	(4.1-7.8)
\$20,000 - \$34,999	3.4	(2.5-4.5)
\$35,000 - \$49,999	3.7	(2.7-5.1)
\$50,000 - \$74,999	2.6	(1.8-3.7)
≥ \$75,000	1.7	(1.1-2.7)
Health Insurance		
Insured	3.6	(3.1-4.1)
Uninsured	-- ^b	-- ^b
Disability		
Not disabled	1.5	(1.2-1.9)
Disabled	8.8	(7.4-10.5)

^a Among all adults, the proportion reporting ever being told by a doctor that they had kidney disease.

^b Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Kidney Disease by Race and Gender
Michigan, 2014





Depression

2014 MiBRFS

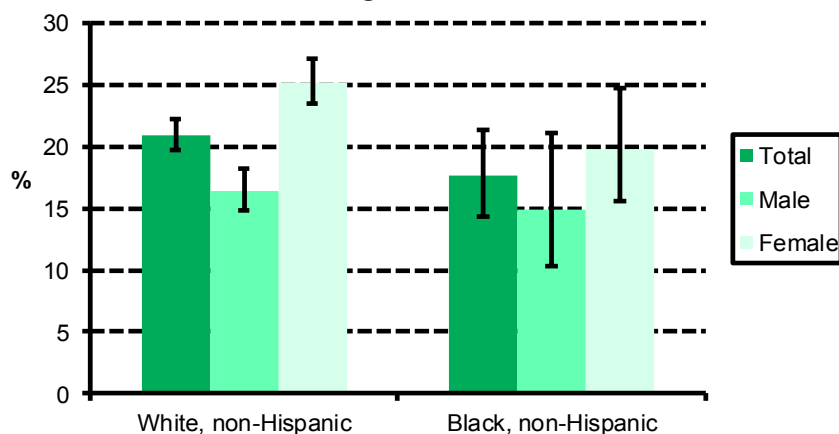
Depression is a common and treatable medical disorder that is more common among individuals with chronic conditions such as obesity, diabetes, and arthritis.³⁶

- ◆ In 2014, an estimated 20.5% of Michigan adults reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression.
- ◆ The prevalence of depression was highest in the middle age groups and decreased with increasing household income level.
- ◆ Females (24.7%) reported a significantly higher prevalence of depression than males (15.9%).
- ◆ The prevalence of depression was similar by race/ethnicity and insurance status.
- ◆ Disabled adults (42.6%) were more likely to have been diagnosed with depression than non-disabled adults (13.3%).
- ◆ White, non-Hispanic females (25.2%) reported a significantly higher prevalence of depression than White, non-Hispanic males (16.4%).
- ◆ In 2014, the prevalence of depression among Michigan adults (20.5%) was higher than the U.S. median prevalence (18.9%).

Demographic Characteristics	Ever Told Depression ^a	
	%	95% Confidence Interval
Total	20.5	(19.3-21.6)
Age		
18 - 24	16.7	(13.3-20.8)
25 - 34	20.7	(17.5-24.4)
35 - 44	22.8	(19.5-26.6)
45 - 54	23.3	(20.7-26.0)
55 - 64	25.2	(22.9-27.6)
65 - 74	18.1	(16.0-20.4)
75 +	10.7	(8.9-12.9)
Gender		
Male	15.9	(14.4-17.6)
Female	24.7	(23.1-26.4)
Race/Ethnicity		
White non-Hispanic	20.9	(19.7-22.2)
Black non-Hispanic	17.6	(14.3-21.3)
Other non-Hispanic	19.1	(14.9-24.3)
Hispanic	27.2	(19.2-37.1)
Household Income		
< \$20,000	34.4	(30.8-38.2)
\$20,000 - \$34,999	23.3	(20.6-26.2)
\$35,000 - \$49,999	21.8	(18.8-25.0)
\$50,000 - \$74,999	15.7	(13.2-18.6)
≥ \$75,000	13.4	(11.7-15.4)
Health Insurance		
Insured	20.6	(19.4-21.8)
Uninsured	20.2	(16.4-24.5)
Disability		
Not disabled	13.3	(12.2-14.5)
Disabled	42.6	(39.9-45.3)

^a Among all adults, the proportion reporting ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression.

**Depression by Race and Gender
Michigan, 2014**



Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.



2014 MiBRFS

Acknowledgements

Data was collected for the 2014 Michigan Behavioral Risk Factor Survey (MiBRFS) by the Institute for Public Policy and Social Research, Office for Survey Research, at Michigan State University. The authors are grateful to Linda Stork, Debra Rusz, and the many BRFSS supervisors and interviewers for conducting the survey.

The assistance and financial support provided by the Population Health Surveillance Branch of the Centers for Disease Control and Prevention and our many MDHHS program partners is greatly appreciated.

We are especially grateful to the residents of Michigan who agreed to participate in this survey.



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Number of copies: 700
Total printing cost: \$2,655.03
Price per unit: \$3.54

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